

# INLAND



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# *Inland Seas*



QUARTERLY BULLETIN OF THE  
GREAT LAKES HISTORICAL SOCIETY

Volume VIII

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# The Search for La Salle's Brigantine Le Griffon\*

By ROY F. FLEMING

## PART I

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### HISTORICAL BACKGROUND

THE BUILDING OF THE brigantine *Le Griffon* at Niagara and her use in navigating the Upper Great Lakes were an important part of Sieur Robert de la Salle's "Grande Enterprise" to explore and colonize the Mississippi area of North America.

This vessel was built beside Cayuga Creek, which flows into Niagara River above the Falls, during the winter and spring of 1679. The chief carpenter was Moise Hillaret, an experienced shipbuilder from Europe, with Capitaine Henri de Tonty in charge of the camp, and Father Louis Hennepin as chaplain. Most of the iron-work, sails and rigging had been brought from France, some of the ship's guns from Fort Frontenac, Lake Ontario, while the timber was obtained in the forests near the ship-yard.

The *Griffon* was shaped like a small Dutch man-of-war, the hull being known as *flute* or *fluyt* of the Dutch galliots. Hennepin's contemporary drawing of the ship before launching gives much information as to her style and shape. According to La Salle the capacity of the vessel was 45 to 50 tons, and according to Hennepin, 45 to 60 tons. The length of the craft was probably 70 feet, with the keel 50 feet.

The hull consisted of keel (and perhaps keelson), ribs, planking, main deck and bulwarks with openings for cannon, also rudder and tiller at the stern. In the after part of the ship was a quarter or poop deck and above it a navigation chamber with door and openings for light. There was an ornate prow with a winged griffin, and in the trapezium of the stern a spread griffin carved in relief.

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\* This paper was presented to the Royal Society of Canada, June, 1952, by Mr. Fleming, a trustee of G. L. H. S. and author of many articles on lakes history. A number have previously appeared in INLAND SEAS.

The vessel had a main-mast, a mizzen-mast, and possibly a fore-mast, the first two fitted with removable top-masts, also a bow-sprit. The sails were square in form, and doubtless of fine linen, of the superior kind then made in France, the main course probably with decoration added.

The ship had two large anchors with either chains or heavy rope. The armament is described by Hennepin as "five small Guns, two of which were brass and three Harquebuze a-crock," while La Salle's official account gives "sept petites pieces de canon de fonte" (seven small cannon of cast-iron).

The *Griffon* began her historic voyage from the foot of Lake Erie August 7th, 1679, the first sailing vessel to navigate the Upper Lakes. Included in her cargo were iron-work and two large anchors to be used for the construction of a sailing vessel for the Mississippi. The navigation was in charge of Pilot Luc, an experienced ocean mariner, a man large of stature. The vessel proved a good sailer, successfully weathering a severe storm on Lake Huron, reaching Michillimackinac (St. Ignace) August 27th, and the island of the Pottawatomies (Washington Island) Green Bay, Lake Michigan, September 13th.

After the ship was loaded with furs, La Salle ordered the pilot with five seamen to take the cargo to Niagara. On his way he was to leave off the anchors and iron-work at St. Ignace, and on his return to Lake Michigan he was to meet the leader at the River of the Miamis (River St. Joseph in Indiana). The *Griffon* set sail September 18th in a favourable wind but was soon to meet the equinoctial gales.

La Salle reached the Miamis River in October. Tonty arrived late in November with bad news: "Seignior!" he informed his chief, "the *Griffon* did not call at Michillimackinac as the pilot was ordered, and the Pottawatomie Indians at the north reported that they saw the vessel labouring in the storm, and that night heard three cannon shots as if the ship were in distress."

This was terrible news for La Salle, and he immediately ordered two of his men, Noel Le Blanc and Chapelle, to go to Michillimackinac, and, if they found the vessel, to pilot her to the Miamis River. This was the beginning of a search for the lost *Griffon* which continued for over 250 years.



La Salle made a further effort to locate his lost ship when on his journey east with five companions the following spring. At Fort Miami he met the two searchers, Le Blanc and Chapelle, who reported having made a complete circuit of the lake without having found any trace of the vessel. So when the leader reached the Detroit he ordered two of his men to go by canoe north through Lake Huron to make further search for the *Griffon*. If they found the wrecked vessel, they were to try to save her cargo of furs. In the following autumn (September, 1680) when La Salle reached Michillimackinac on his return journey to the west, he learned that some relics of the *Griffon* had been found near the Strait of Mackinac. "There were," he says, "two pairs of linen breeches smeared with pitch, a hatch-cover, a cabin door, the truck of a flag-pole, a length of rope, and some packets of beaver skins. All this made me believe that the vessel had been wrecked on these islands and that she was lost with everything on board."

However, another version of the loss of the *Griffon* gained credence in Canada a little later. According to Bacquerville de la Potherie (*Histoire de l'Amérique*), soon after the ship set sail from Green Bay she anchored beside a village of Ottawas. Some of these savages in great fear of the vessel and her guns, got on board, massacred the pilot and crew, and then burned the ship.

#### FIRST SEARCHES IN MODERN TIMES

The first known claim of the finding of *Griffon* relics in modern times was in 1848. This was in a letter from James W. Peters of East Evans, Erie County, published in the *Commercial Advertiser* of Buffalo, N. Y., January 26, 1848. According to this communication there had been found on the neighboring south shore of Lake Erie, not long before, two cannon embedded in the sand, uncovered through the action of a storm.

"They were defaced by age and rust," the man writes, "filled with sand, the horns or trunions knocked off, and an inscription in French on one of the guns." Peters also tells that at the same spot some thirty years before, a cache of iron rods weighing 700 or 800 pounds had been found. And over these irons had grown a tree 12 inches in diameter, indicating at least another 30 years of the existence of the deposit.

Peters estimated that the relics had been cast there before the British period on the Lakes, which began in 1760. He further concluded that the

relics had come from La Salle's *Griffon*, with both cannon and iron-work on board, wrecked or disabled there in 1679. It may be pointed out, however, that the estimated time of the said deposits might well be several years later than 1760, and, further, that many of the British vessels built at Navy Island, Niagara, after 1761, and at the King's Shipyard, Detroit, after 1771, were armed with French guns taken from the French war-ships captured at Fort Frontenac and Fort Niagara. Thus it would seem more probable that the wreckage on the Erie shore came from a British vessel in distress rather than from La Salle's brigantine.

Many investigators and searchers have claimed that, if remains of La Salle's brigantine are ever located, they will be found in the Lake Michigan area. These people point out that there was no contemporary evidence that the vessel ever went through the Strait of Mackinac, and that the ship was last seen in serious distress in the northern part of the Lake.

Dr. Franklin Cook, of Evanston, Illinois, who organized the *Griffon* Research Society of the Great Lakes, is long a major claimant on behalf of Lake Michigan. In a letter to the writer he says: "The Beavers (Islands) again fit the story perfectly. Shoals and bars abound here and jut out two leagues or more in places."

In the harbour of St. James, Beaver Island, there is an old shipwreck of unknown age, claimed by some as the Mormon "King" Strang's ship of middle 19th century. By others, including Captain Dominick Gallagher, Keeper of the Beaver Head lighthouse, this is claimed as the wreck of La Salle's *Griffon*. "In 1875 it was partly above water"; he says, "it was not a schooner, but a caravel style of ship of shallow draught with a high stern like the old salt-water ships, with no centre-board. As a boy I swam and dived around the hull; and it was so different to the ordinary sailing vessels, that I became convinced it was the long-lost *Griffon*."

John J. Mitchell of Escanaba, Michigan, tells in a letter to the writer of searching northern parts of the Lake:

"If the vessel was seized and burned by the Ottawas soon after leaving Green Bay," he writes, "this must have occurred by Summer Island, early known as *Isle de Détour*, an old home of the redmen. The only strange and unsolved wreck there is at Fisherman's Shoal, but it was at too great a depth for me to make a proper examination."



## LAKE HURON SEARCHES

Searchers for the *Griffon* who put their faith in Lake Huron waters argue that the vessel might easily have passed eastward through the Strait of Mackinac at night or in thick weather, unobserved by any of the few inhabitants there at the time. The failure of the pilot to call at St. Ignace might be explained by his having lost his bearings in the storm, or by having received damage to the ship's steering gear, rendering the vessel unmanageable.

A claim was made in 1860 by two fishermen of Southampton, Ontario, Alex. Munroe and George MacAuley, that they had located the wreck of La Salle's *Griffon* at Fitzwilliam Island to the east of Manitoulin. Near the southern tip of this island, when setting their nets, they spied a dilapidated old vessel sunk near the shore. Among the broken timbers the men discovered an old brass cannon weighing about 200 pounds, with French markings, also two muskets of antique appearance. The fishermen sailed for home with these salvaged relics, declaring that they were from La Salle's French ship lost two centuries before. Unfortunately, their sail-boat overturned at Chantry Island near their home, casting the cannon and one of the muskets to the bottom of the Lake.

It was sometime afterwards that the finders were disillusioned when they learned that the schooner *Alice Hackett* had been wrecked at that spot by Fitzwilliam Island in the fall of 1828 when moving a portion of the garrison and their effects from Drummond Island to Penetanguishene.

A still stronger claim was made in 1897 on behalf of the remains of a ship buried in Mud Lake (or Lake Solitude) connected by Tawas Bay with Saginaw Bay. According to T. E. Johnson, Superintendent of Education at Lansing, Michigan, he uncovered there the remains of an old sailing vessel with wooden spars, pieces of metal of ancient workmanship and heavy chains of odd design. Two years later, with mechanical appliances, this investigator uncovered a large portion of the wreck and found the remains of human skeletons. A sword was found stuck through one of the skeletons, its hilt decorated with French lilies and an inscription in French containing the date "1570." In Johnson's Report to the *Michigan History Magazine* he claimed that the sword was of French manufacture, the vessel La Salle's *Griffon*, and the skeletons those of

Pilot Luc and his five seamen, who had suffered death from attack or from a quarrel amongst themselves.

Another claim, somewhat minor in character, came from a family digging a well by the shore of Saugeen River at Southampton in 1897. There the Rowan family, after excavating to a depth of ten feet, uncovered the bow of an old sailing vessel with a prow carved in the form of an animal resembling a griffin. They also found a unique metal bell about five inches high and in the form of a petite maiden with a rounded skirt decorated with fleur-de-lis, seemingly of French manufacture. The family retained the belle or bell and said that La Salle had used it to call his servant L'Esperance to duty.

One of the most recent claims that the *Griffon* had been found, was made on behalf of an old shipwreck near the Cheneaux Islands just east of the Strait of Mackinac. There had long been a tradition amongst the neighboring Chippewa Indians that a trader's ship had foundered in these waters in early times and that all hands were lost. It was said that this if found would yield a "rich treasure." One day a cannon ball and an old gun-carriage were picked up near Birch Island, which added to the tradition of the vessel in that she must have been armed.

The sunken wreck was first located about 1925 by Captain Louis Goudreau, a veteran lake captain, who died soon after and before he was able to make an examination. The wreck was rediscovered later by Oliver Birdge, a summer resident of Hessel, aided by a Chippewa Indian named John Ossogwin. Birdge being a good diver went down to examine the structure and found the hull of hewn timbers with a high poop deck of ancient design. Through an opening in the poop cabin he observed white objects which appeared to be human skeletons. The Hessel Chamber of Commerce then undertook to raise the derelict, and planned that if it were found to be La Salle's historic barque, to have it rebuilt and set up on shore as an historic relic for the public to view. However, when examination of the wreck was completed in April, 1934, by Dr. Franklin Cook, marine scientist of Evanston, Ill., he declared it to be the remains of a forgotten lumber schooner of date not earlier than 1850, without name, without treasure, and without human remains.

*(To be continued)*



# The Most Reluctant Lady of the Lakes

as told by

CAPTAIN FRANK RICE\*

NEVER IN ALL OF my fifty-six years on salt and fresh water, from cabin boy to master mariner, aboard one hundred and one ships, did I ever sail such a one as the *Crescent City*. Her reputation will go down in Great Lakes history." This was the prediction of Captain Frank Rice of Cleveland, Ohio when we were chatting with him last August just after he had celebrated his 98th birthday. "I never knew another ship who could get herself into such a mess of trouble. She seemed to enjoy playing tricks on her crew," he went on to tell us, while we sat admiring this sturdy old tar. He had the appearance of having thrived on maggoty hardtack back in the days of wooden ships and iron men, and of still being able to stow a top-sail and grease down a royal mast. His blue eyes sparkled in a weathered face beneath a head of wavy white hair. "Why, you almost didn't dare lower your eyes to put an entry in the log without having her go off on some frolic of her own."

Captain Rice spoke of the *Crescent City* as if she were human, not a 5800 ton ore carrier of the Pittsburgh Steamship Company, built of steel back in 1897, and having twelve hatches down along her 406 feet of length.

"She was a jinx you mean?" we suggested.

"No. She just wouldn't be tamed. Just was a wild, independent beauty. From the day they launched her she started right in acting up. She headed toward reefs and shoals every chance she got. Grounded in about every river there is connecting the Great Lakes."

"How long did you have to put up with her?" we wanted to know.

"From 1905 to 1910. I started off fine that first spring she was under my command. Went right through almost to the end of the season with-

---

\* To his granddaughter, Esther Rice Battenfeld. Since this was written Captain Rice died at his home on October 10, 1952, at age 98.

out a mishap. Then fate played into her hands. We ran afoul of a terrific gale in November up on Lake Superior. Many vessels were lost. The *Crescent City* must have become a little frightened. She responded to orders; and when the worst was over, she went aground a few miles northeast of Duluth. All that winter she laid up against the shore, as contented as you please, wedged in by projecting rocks. There she rested easily in a little bay sheltered from the waves. That storm of 1905 was our first real experience together.

"When I turned her over to Captain Harry Culp in 1910, I wondered what trouble she would start with him. He was about the most cautious of all lake skippers. He never attempted a dangerous passage at night; and for that we used to call him 'Daylight Harry.' Those days we had no radar, no ship-to-shore communications, no modern aids to navigation. We just carried coal up the Lakes, and iron ore and grain back down as fast as we could, breaking rules of the road every trip, trying to beat some record. We even sailed at night sometimes with our lights out, full steam ahead, attempting to sneak into port before other boats so we might get our cargo unloaded first.

" 'Listen, Harry,' I told Captain Culp, 'caution may be rewarded, but it won't hang up records. And it won't make the *Crescent City* behave. Besides, what's the fun of sailing if you can't set some new record every few weeks?'

"That's the way we sailed in the old days. I warned Captain Culp, 'The *Crescent City* is going to catch you off guard and get her own way in any event.' She did, too. He no more than got her out of the harbor on the first trip of the season than she went aground. It's been said that he took her too close to shore to wave to his wife and the *Crescent City* got jealous.

"Later, while she was being repaired, Culp came to me for consolation. 'Great guns, man, she has a mind of her own,' I tried to make him understand.

"But once while I had her, she ran into more trouble than she had bargained for. It was during my second season in command of her. 1906.

"We'd floated her off the rocks that spring, put her back into commission and given her a fine paint job. The whole month of May, even with the ice still clogging Lake Superior, we'd sailed up and down the Lakes



without the slightest mishap. I'd show her who was boss after all. I did, until June 9th. It was a real sunny day. Everything was going smoothly.

"We were bound down from Marquette with a load of ore, heading toward the locks at Sault Ste. Marie where we would be lowered carefully down twenty feet into the St. Mary's River, and then be on our way into Lake Huron. The hot summer sun beat down on our decks, and raised the temperature of our brass fittings. It was dinner time, and I'd sent the men in the pilot house aft for their noon meal. I'd keep the vigil alone.

"Maybe the *Crescent City* was tired of running in this hot weather. Maybe she'd waited until we were alone before springing a new joke on me. I'll never know. But once again fate played into her hands.

"I was watching the *Perry G. Walker*, a freighter belonging to the Gilchrist Transportation Company, waiting for a chance to come up through the American locks into Lake Superior. Often, during the height of the season, there's almost a Times Square traffic problem at the Soo Locks, with impatient vessels anxious to lock through. This particular day, several boats were waiting their turn, along with the *Perry G. Walker*. Her skipper didn't like the idea of a long delay. So he started nosing his way over toward the Canadian locks where traffic wasn't so heavy. He came up to the pier just beyond the locks, already to start up through as soon as the *Assiniboia*, a passenger boat with about 300 people aboard, locked down.

"Well, I wasn't going to let the *Perry G. Walker* lock up through ahead of the *Crescent City*. I was just as anxious to lock down. I steamed up to about three lengths aft of the *Assiniboia*. Her master, with the common courtesy which one vessel extends to another at the Soo, signaled me an invitation to lock down with him. He would wait until I had caught up to his stern, and we could lock through at the same time, since our two lengths would fit together closely but with a few feet to spare in the locks at once.

"I happened to look up just in time to see the *Perry G. Walker* break from the pier and steam head-long into the lock slip. She was not checked until her bow had smashed the lower gates of the locks, tearing them off their hinges.

"Now it was too late to do anything but face tragedy. The upper gates at the Lake Superior end of the locks had already been opened for our entrance. Three hundred miles of that upper lake's water gushed wildly in a rampage down through the open gates. In an instant the placid waters of the locks turned into a turbulent rapids. At the lower end was a 20-foot cataract, where, but a second before, the St. Mary's River gate had held back the pressure of the higher lake.

"The stern of the *Assiniboia* leapt through the air like the sail of a flying fish. Her nose pointed down for that inevitable plunge into the furious waterfall. We were traveling behind her at a speed of thirty miles an hour, without a single means of control to save life or ship. We were a leaf in a whirlpool, a little boy's toy boat floating unguided into a sewer hole.

"All hell broke loose. My crew ran out on deck. Some jumped safely to the wall of the locks, as we lunged from one side to the other, buffeted on our way. There was no time to decide whether or not I'd stay with my ship. I just had to, a prisoner being thrown about in the pilot house.

"Our cook, a big, husky woman, rushed out on deck with her dog, a pampered poodle which fed on the best galley delicacies, clutched in her arms. 'Save me, Fido! Save me, Fido!' She screamed. 'Save me!'

"A passenger aboard the *Assiniboia* heaved his suitcase onto the wall of the locks, then climbed onto the boat's rail to jump to safety. One of the officers, fearing panic, leapt to the rail, and struck the passenger full in the face, sending him reeling backwards onto the deck.

"I braced myself against the wheel in an attempt to work the rudder and halt our doom. We were overtaking the *Assiniboia*. We were about to ram into her stern when, with a thundering bolt, she crashed down over the cataract.

"Closer and closer we edged to the brink of disaster. Our turn was next. For an instant we hung suspended in air. I closed my eyes, and heard myself saying, 'Good-bye, old world!' Over we went with every unsecured object on board hurtling forward. Down we dropped. But so swift was our descent at such terrific speed that our vessel survived. A delayed fall would have broken the *Crescent City* in two.

"I opened my eyes when I heard the crunching of our hull against the miter sill of the locks. Opened them upon a new danger. For, as we



floated into the St. Mary's River on the crest of the gushing deluge, we were again bearing down upon the *Assiniboia*. I thought we might try to direct our course to port and clear her, when suddenly she dropped her hook. The wild waters swung her across our path. And there was the *Perry G. Walker* laying to port of us. Could we hope to slither through the narrow passage ahead between these two vessels? Or would we split the *Assiniboia* in half, sending her three hundred passengers to almost inevitable death? Drowning them like rats?

"I signaled the engine room for full speed astern. Would the *Crescent City* respond? Had she had enough fun? She did respond. She swept on, of course. But her stern swerved to starboard a second before we struck the *Assiniboia* amidships. Our bow alone gave the passenger boat a glancing nudge.

"When our lines had been made fast to the pier opposite the *Perry G. Walker*, my chief engineer, A. E. Buddemeyer, came up on deck. He was the hero. He'd stuck to his engine. He'd obeyed orders.

" 'My God, captain, what's happened?' he asked.

" 'Mr. Buddemeyer,' I said, 'we've just gone through hell. That's all.'

"We tried to figure out what had caused the *Perry G. Walker* to crash through the lock gates. But whatever did occur remained somewhat of a mystery. I drew my own conclusions. You know, that *Crescent City* may have cast a spell over those other vessels.

"I took her on down the Lakes, wrenched and strained, and with her bottom ripped out. Compressed air from her four compressors had to be used to keep forcing the water out of her. I made her suffer all of the way to Conneaut, Ohio, where we unloaded her cargo. I remained oblivious to her groans, sailing her back up to Toledo for repairs."

"You sailed her again that season?" we asked.

"No, she wasn't ready to go out until the following spring."

"Bet you were glad to be finally rid of her in 1910."

"Oh, no. It's a funny thing, but when I'd see her out on the Lakes or in the rivers, sailing along as smartly — even more smartly than the next one, I sort of missed her. She wanted her own way all right. But then a lot of women do. And we still love them."

# Historic Mines of Isle Royale

By GEORGE R. FOX\*

## PART I

THE EARLIEST FRENCH MAPS that show the Great Lakes might lead one to conclude that a ball bat was used on Lac des Puans (Lake Michigan) to drive it from its true position, almost north and south, toward the northwest. This is but one of the many errors on the Sanson maps of 1650 and 1656.<sup>1</sup>

On these maps Lake Michigan is shown lying a little south of west; the other lakes, except Superior, are mere travesties on their real shapes. On Casson's map of 1670, Michigame du Hurons (Lake Huron) is not unlike a pancake in shape.

The crudity of the maps of the Lakes but emphasizes the correctness of the drawing of Isle Minong (Isle Royale) on Marquette's and Joliet's maps of Lac Supérieur (Lake Superior).

The map of Superior accompanying the *Jesuit Relations* of 1670-71 shows Isle Royale, by the scale used, almost its exact size. The Island is placed in its correct position with regard to the Canadian shore and to Keweenaw Peninsula. The distance from Canada, about 13 miles, is apparently that; and the form, especially the northeastern end with its harbors and coves, is nearly correct. The compass orientation closely agrees with the true direction, northeast and southwest.

It would seem impossible for any cartographer to do so excellent a job without having first-hand knowledge of his subject. Did someone among the French fathers and fur traders visit the Island? Up to 1670 there

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\* Dr. Fox, of Dowagiac, Michigan, was formerly president of the Michigan Archaeological Society. His article will be concluded in the next issue.

1. Maps in Warren C. Hall, "A Minor Mystery of Early Michigan," *Michigan History Magazine*, vol. 17, nos. 3-4, pp. 399-419.



was almost no mention of Isle Minong. The records do not show that up to that time any white man had set foot there.

While Father Dablon in his description of Isle Minong sets down that he "intends to visit the Island" during that same summer, nowhere in the *Jesuit Relations*, or in other French documents or letters, is such a visit mentioned.

If the French did make a trip or trips to Isle Royale, their interest must have been in the copper on the island. It is almost impossible that from descriptions obtained from the Indians then living about Lake Superior, such a faithful map of the island could be made.

Father Dablon's account, in which he tells how his information was obtained, precludes this as a usable source for accurate map-making. "As the Savages have told many people," he writes, "farther to the west on the north side, is found the island which is most famous for its copper, and is called Minong. \* \* \* This large island is almost surrounded with islets that are said to be formed of copper." <sup>2</sup>

Notwithstanding this promise of great wealth, the French, probably guided by the "bird in hand" adage, refused to give up the certainty in the fur trade for the possibility of profit in copper mining.

It would appear that during the French period, the Indians did not entirely forsake the diggings. Probably they continued to visit Isle Royale and the Keweenaw Peninsula during the entire fur trading era and continued their visits as late as 1842 when the Chippewa ceded the Island to the United States. This treaty does not mention Isle Royale by name. It is ceded by the covering phrase, "including all islands in the said lake." <sup>3</sup>

The prehistoric copper mines on Lake Superior were worked by the ancestors of the modern American Indian. While it is not positively known that copper was used by the Indian races preceding those in America at the coming of the French, more evidence may be found to show that they did.

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2. Geo. R. Fox, "The Ancient Copper Workings on Isle Royale," *Wisconsin Archaeologist*, vol. 10, no. 2, July 1911, p. 78.

3. "Indian Land Cessions in the United States," *18th Annual Report of the Bureau of American Ethnology* 1896-97, p. 776.

While no one has ever reported that Indians were seen at work on the copper veins of Isle Royale or on Keweenaw, or picking copper nodules from the sands at these places, the copper weapons, tools and ornaments found on the village sites, and in mounds and graves in Michigan, Wisconsin, Minnesota, Ohio and in the States east to the sea and south to Florida are made of the red metal from the Michigan deposits.

Michigan copper is unique in that it is a pure metal and is not combined with other metals as in the ores of other copper beds. Michigan's native copper contains "a small amount of free silver,"<sup>4</sup> in distinction to the other copper ores in which copper and silver are mixed with many minerals. In the Lake Superior copper, silver is found in tiny droplets or threads running through it. Such silver is frequently to be seen on copper artifacts. An ornament was picked up on the Sauk-Fox site on Little Lake Butte Des Morts between Menasha and Appleton, Wisconsin. On one of its flat surfaces was a filament of silver about two inches long.

When copper artifacts found in America on sites formerly used by the Indian are analyzed, almost invariably the copper of which they are made came from either Keweenaw or Isle Royale.

Copper said to be "found" in Michigan does not express the facts. While some may have been "found," or picked up, as the finder prowled the sands and other materials dropped by the glacier, the major portion was dug out of the ground by prehistoric mining.

In prehistoric mining, the term "mining" as used to mean "a subterranean passage or cavity," does not exactly describe the primitive pits. Mostly a "mine" is considered any shaft dug down into the earth.

It is known that by the ancient dwellers in Missouri, "deep, sinuous galleries had been excavated in the ore (iron) body."<sup>5</sup> The copper-mining Indians did all their work in the open in trenches or pits of various lengths.

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4. Geo. A. West, "Report of the McDonald-Massee Isle Royale Expedition 1928." *Bulletin of the Public Museum of the City of Milwaukee*, vol. 10, no. 1, May 29, 1929, p. 59.

5. F. W. Hodge, *Handbook of American Indians* . . . Smithsonian Institution Bureau of American Ethnology. Bulletin 30. See entry, "Mines and Quarries."



"The aboriginal copper workings on Isle Royale are said to extend over fifteen or twenty miles of country." <sup>6</sup>

How many pits there are is unknown. No one has attempted to count these ancient works. West speaks of Isle Royale as the "land of ten thousand pits and trenches." <sup>7</sup>

The pits are scattered from one end to the other of the 240 square miles, nearly 200,000 acres, of Isle Royale. The island is "forty-four miles long with an average width of about four and a half miles, most of the shore line (except on the northwest side), being protected by a chain of more than a hundred and fifty small islets and many minor rocks." <sup>8</sup>

Probably because Isle Royale sands contained small and larger fragments of copper, and the veined copper seems to have been laid closer to the surface than in the veins of Keweenaw, many more pits were found on the island than on the peninsula. J. T. Reeder says "Around them (the modern mining shafts) are hundreds of old Indian copper pits. To say that there were thousands would not be exaggerating." <sup>9</sup>

The aborigines made use of nature's own work in the Pre-Cambrian Age which was of volcanic nature in the copper country and over western Lake Superior. The molten material which was thrown out, probably through fissures, contained quantities of copper shot through with particles of silver. Very little volcanic ash or other evidence of explosive action is present.

"At least seven different outflows of lava occur on the island. These are indicated by the seven principal ridges which make up the surface of the island and the neighboring group of smaller islands." These layers are interbedded with smaller amounts of sandstone and other fragmental materials. <sup>10</sup>

Ages later the glaciers moved down. For the ancient miners their work was of the greatest importance; they left the copper veins visible on the

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6. Chas. E. Brown, "The Native Copper Implements of Wisconsin." *Wisconsin Archaeologist*, vol. 3, no. 2, Jan. 1904, p. 54.

7. Geo. A. West, "The McDonald-Massee Isle Royale Expedition, 1928." *Bulletin of the Public Museum of the City of Milwaukee*, vol. 10, no. 1, p. 32.

8. *Ibid.*, p. 11.

9. Chas. E. Brown, "The Native Copper Implements of Wisconsin," *Wisconsin Archaeologist*, vol. 3, no. 2, p. 54. J. T. Reeder in a letter to Brown.

10. Geo. A. West, "The McDonald-Massee Isle Royale Expedition, 1928." *Public Bulletin of the Museum of the City of Milwaukee*, vol. 10, no. 1, pp. 32, 14, 12.

surface. These ice flows smoothed the surface of the rocks on the island, broke up and crushed the lava and other stone, then picked it up and dropped the debris, together with particles and lumps of copper that were set free, over all of what is now the United States as far south as the Ohio River. Only a relatively small part of the glacial debris was left on Isle Royale.

"Pieces of copper \* \* \* are found at the water's edge almost around the island (Minong), especially on the south side. \* \* \* In the water is seen copper sand \* \* \* and from it may be dipped up with ladles grains as large as a nut, and other small ones reduced to sand."<sup>11</sup> These nuggets or nodules, known as "float" or "drift" copper, are still found in glacial drift.

At what date the first aboriginal pit was opened is not known and possibly never will be. The rediscovery of the pits must date before or about 1844, for at that time Dr. Jacobson, who spent several years on Lake Superior during the copper boom in the forties, told of the ancient works.

The discovery of the workings on Isle Royale was made in 1847 when the first attempts at modern mining were made. According to the early stories about the ancient pits, they were so thickly scattered over the island that one could step from the sides of one to another.

This was not true, but in one area, on the south side at the head of McCargo Cove where the ancient pits extend over two sections and into others, the trenches do touch one another. Men connected with modern mining on the island, especially in the seventies and later, agreed that there was no modern mine opened on Isle Royale in which copper was found but where the work of aboriginal miners was apparent.

Alfred Merritt, who was on the island in 1873 and 1874, gives evidence bearing this out. "We thought we had stumbled upon a copper vein not found by the ancient workers," he explained. "At a point on the north shore of Lake Desor we discovered copper on the southern slope of the range. Yet when we followed the vein a short distance inward we came upon the pit of the old workers."<sup>12</sup>

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11. Geo. R. Fox, "The Ancient Copper Workings on Isle Royale." *Wisconsin Archaeologist*, vol. 10, no. 2, p. 78, quoting from the *Jesuit Relations* of 1669-70.

12. Told to Geo. R. Fox in an interview with Mr. Merritt.



Keweenaw Peninsula, some years ago, was producing practically all the copper mined in the United States and careful surveys based on deep borings were necessary. These showed that "the copper bodies (run) parallel to the position of Keweenaw Point, are from three to four miles wide and extend from Lake Gogebic on the south to the end of Keweenaw Point on the north, a distance of about a hundred miles."<sup>13</sup>

On Isle Royale, where there were at least seven lava flows, seven principal ridges make up the surface of the island. These seven form the two principal ranges which run parallel to the long diameter of the island. One, the Greenstone Range, extends the entire length of the island, rises to a height of 450 feet (above the lake) and forms the divide of Isle Royale. The other, the Minong Trap Range, lies about a mile distant from the Greenstone, which it parallels and has an elevation of 400 feet.

All the modern mines (now abandoned) and nearly all the aboriginal pits lie on the summits, if there is a summit, of these ranges. Nowhere do the ranges come to a peak. The tops are broad, undulating, with few breaks across their prime length. They were planed, and sometimes polished, when the layers of copper-bearing rock of the island were cut down hundreds if not thousands of feet by glacier action.<sup>14</sup>

Along the northwest range aboriginal pits are found on the southwest side of the end of McCargo Cove, reported south of Todd Harbor near Lakes Harvey and Hatchet, at the north end of Lake Desor, south of this lake on the headwaters of Siskiwit River and on Triangle Island, a small rock islet almost a mile out in the lake southwest of Washington Island.

On the other range they are found on some of the islands off the coast, at old Saginaw Mine across Rock Harbor from Chlorastolite Beach, near Ransom at the south end of Rock Harbor, on Sibley River (formerly Little Siskowit) emptying into Hay Bay, and two miles south of the Sibley site about the upper end of an unmarked creek; and it is believed pits exist farther southwest near Lake Feldman.

The fact that the ore veins lie on top of the ranges, was a help and a hindrance to the ancient workers. Following the contours, from where

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13. Letter from J. T. Reeder to Chas. E. Brown, in "The Native Copper Implements of Wisconsin." *Wisconsin Archaeologist*, vol. 3, no. 2, p. 54.

14. *Report of The McDonald-Massee Isle Royale Expedition*, 1928, pp. 11, 14.

exposed the veins dip downward at an angle, the miners found that the beginning of an excavation was easy, as the vein at the top lay almost along the surface of the ground. But the dip of each stratum made for difficulty. The Indian diggers had to follow the vein inward and downward, the trench becoming deeper as the copper vein went farther under the rock. Finally, the overlying rock became too thick, or deep, for them to handle with the tools at their command. The cut or drift had to be abandoned. When these trenches are cleaned out they reveal the face of the rock with its copper vein. This is one of the many things that tells the story of the ancient mining.

Objects of wood were found in these trenches. Nearly all were more or less rotted, but usually enough was left to tell the story of their purpose. Probably a great wealth of wooden and other tools were found in the late 40's and again in the 60's and 70's when the miners cleaned out the old pits to reach the veins at their bottoms. In 1875 George A. West, then a lad, paid a visit with his father to the mining regions. He saw wooden objects recovered from the aboriginal trenches. These he describes as "a ladder, two paddles and fragments of a birch-bark receptacle."<sup>15</sup>

The "receptacle" probably was a pail for carrying water or bailing out the underground seepage that must have troubled the miners. Gillman writing of the trenches says, "They are connected underground and drains are cut to carry off the water. \* \* \* there is one deep cut in the rock, 60 feet long, covered in its entire length by timbers that are now decayed, and the whole is a mass of rotten wood."<sup>16</sup> Although no one else reports this cut and modern investigators have failed to find drains, it is possible that drains were cut.

West's paddles undoubtedly were wooden shovels, as paddles had no use in the trenches. Many other reports were made of the finding of shovels. The ladder "was merely a trunk of a small tree with the limbs cut away leaving stumps about six inches in length, the well-known form of Indian Ladders."

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15. Geo. A. West, "Prehistoric Copper Mining." *Bulletin of the Milwaukee Public Museum*, vol. 10, no. 1, May 29, 1929, p. 52.

16. Henry Gillman, *Smithsonian Report for 1873*, p. 385.



Gillman describes a bowl "taken from the debris of charcoal, etc. at the bottom of the pit. It was \* \* \* about three feet in diameter. \* \* \* This vessel had possibly been used in bailing water from the excavation." Brown also says bowls were used for bailing.

Other wood tools reported are levers, round six-inch logs building cribs, wedges and burned timber. A withe handle (for stone hammers) and a piece of knotted rawhide string have been found. At least one copper chisel was recovered from a pit and one copper maul is recorded. The chisel probably was not used in mining.

The tool most used was the hammer stone, a glacier-formed or water-polished "hardhead" or small boulder. It was oval or egg-shaped, weighing from five to 40 or more pounds. The majority weigh from five to 10 pounds and probably were held in the hand. In use the brittle stone tool did not last long. The hammer soon broke with hard blows, usually fracturing across the point. "About the ancient copper mines at McCargo Cove, Isle Royale, Michigan, there are to be seen tens of thousands of worn out and abandoned sledge heads."<sup>17</sup>

Nearly all the hammers found in the old Keweenaw trenches, had a groove pecked about the middle, the groove being for hafting a handle. On Isle Royale the hammers were not grooved but used in the boulder shape as found.

*(To be continued)*

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17. F. W. Hodge, "Handbook of American Indians." Smithsonian Institution, Bureau of American Ethnology. Bulletin 30. See entry, *Hammers*.

# A Voyage into the Past on the J. T. Wing

By JOSEPH E. JOHNSTON\*

THE NAVIGATOR BEGINNING A ocean voyage must establish a point of departure before losing sight of land. That is if he wishes to make his destination with the maximum degree of accuracy and the minimum of effort. At noon of each following day a position is established, either by dead reckoning or by observations of celestial bodies. No matter how painstaking today's observations and calculations may be, they are of little value except in their relationship to those of yesterday, and to the point of departure. For unless one knows whence he came, and the course and distance made good, it is extremely unlikely that he will be able to lay a true course towards his destination. The study of history may be considered in this manner, for unless we know what progress we have made, and in what direction, and at what cost, how can we plan our future?

Historical museums are not justified by the number of objects they collect, but by the story those objects are made to tell by properly relating them to other objects in the collection and to people and events of significance to human progress. The Museum of Great Lakes History at Detroit, Michigan has kept this in mind from the beginning. Since the schooner *J. T. Wing* was opened, four years ago, visitors to this unique institution may voyage into the past of shipping on these inland seas.

Let us take as a point of departure the era of the dugout canoe, on these waters, for it is there that the voyage begins. That era began so far back in time there is not even an Indian legend telling of it. Today it is hard to imagine the towering wall of timber that crowded close down to the water along every one of the 8,000 miles of shore line. There stood the raw materials for the building of the dugout canoe. The trunk of

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\* Captain Johnston is a retired ocean shipmaster who is now in charge of the Museum of Great Lakes History, a branch of the Detroit Historical Museum.



one tree served to make as large a boat as the Indian needed, or could propel, and one particularly suited to primitive men. No seams to leak, and considerable resistance to hard use and neglect, it served well in the open Lakes, with their rocky shores, and could be paddled along the lower reaches of most of the rivers. Whatever simple commerce there might have been was served by these, the earliest Lakes craft.

For navigating above the first obstructions in the rivers the dugout had disadvantages. It was too heavy to portage. This posed a problem to those who desired to travel in the hinterland. The Indian's solution of this problem constitutes the naval architecture — the first engineered job in this field, and began a tradition. That tradition is one of special types for special purposes.

So good was the Indian's design for the birch bark canoe that we are copying it to this day, regardless of what materials we use in its descendants. It was good on both lake and stream, and since the Indian's way of life did not permit the ownership of more than one boat, the birch bark canoe became the prevailing type. In war and peace it was the best craft, and for nearly a hundred years after the coming of the white man it served Church, State, and whatever trade there was.

With La Salle came visions of empire, and ships to serve it. His *Griffin*, built in 1679, was adapted to the special needs of the times, rather than designed for them. Of Dutch design, she could skim over the uncharted rocks of the unknown shores and come in close to the shore to load where no wharves existed. A few years after her untimely end another type of boat appeared on the Great Lakes. Here, indeed, was a special type for a special need. Built of plank, laboriously whipsawed from the tree, these vessels were about 28 to 32 feet in length, with a long run of flat bottom, resembling what we know as a Cape Cod dory, but with a much wider transom. The flat bottom served a very special purpose. When overtaken by a storm, and unable to reach shelter, this boat was run out on the beach, the cargo removed to a point above wave damage, placed on rollers and hauled out.

Two masts carried what has since come to be called a schooner rig, and were so stepped against the after side of the thwarts as to be easily lowered when occasion demanded. There were two cockpits, one forward and one aft for the crew of two, who could, in a calm, propel the boat with

oars. Between these two cockpits there was a decked-over section for cargo. The foot of the jib was attached to a large ring, or hoop, which could be rigged out to the end of the bowsprit when set, and hauled in for stowing, a very ingenious idea which made it unnecessary to climb out beyond the bow of the boat when taking in sail. From this early Lakes Craft several types have been developed. These became known by other names, but those which retained the rig described above, kept the name "Mackinaw boat," regardless of what forms their hulls took. Since sailing craft usually are known by their rig it is not entirely incorrect to refer to any boat carrying the above rig, as a Mackinaw boat. The "Huron boat" now owned by the Museum of Great Lakes History carries such a rig.

For approximately two hundred years the Mackinaw rig was the most popular for work boats on the Upper Lakes. It was nearly a century, after they first appeared, until anything that might properly be called a ship was launched upon the Upper Lakes for commercial purposes. Small sloops appeared first and as early as 1785 one was navigating Lake Superior, but could hardly be called a ship since she was only 34 foot keel, 13 foot beam, and four feet deep. The schooner *Nancy* built at Detroit is generally thought to be the first commercial vessel built with the sole aim of commerce in view. Even she became a transport serving the garrison at Mackinac Island in the War of 1812. During that period there was much uncertainty as to the proper draft for Lakes vessels, and no special-purpose ships were built. Centerboards were being tried out, and later became very popular, even the largest vessels being fitted with them.

In one sense early Lakes steamers may be called special-purpose craft, since the demand of the times was for fast and dependable passenger service. But the next type that became a truly single-purpose boat was the lumber schooner. When lumber became the predominant cargo of the Lakes there were few improved harbors where the saw mills were located, so shallow-draft vessels were designed to navigate the shallow waters. In order to prevent excessive leeway in the open Lakes they were provided with centerboards. This feature, combined with their peculiar rig made the Great Lakes lumber schooner a distinct type.

Steam cut in on their monopoly of the lumber trade, and most of them ended their days in a tow behind some type of steam-powered vessel if they escaped being driven ashore in some gale. When iron ore became an important cargo there was an attempt to press the old wooden sailing ships into that trade, but they could not take the rough usage, especially at the loading docks, so again a new and special type had to be designed.

In 1882 the iron-hull *Onoko* was launched at Cleveland, and became the first of the long slender metal-hull ships of the type we know today as bulk carriers, all of which are special-purpose vessels. A prominent designer of these ships declares there is nothing more that science can do to improve them. All they can do is build them longer and longer.

Another special type of vessel that has come and gone on the Great Lakes without leaving a trace is the package freighter, which often was really a dual-purpose ship because of its passenger accommodations. This was the principal means of travel available to many communities before the railroad reached them. The design permitted loading and unloading through side ports by the use of hand trucks, a very economical method for small shipments of bags, boxes, and bales. What the spur line railroad did to the package freighter, the highway trucks did to the railroads. Only the truck survived the fight.

In no other waters of the world can a ship wear itself out running between two ports, carrying only one type of cargo, and like its predecessors the bulk carrier of today is unique. So, from the birch bark canoe of the Indian to the leviathan of the Lakes in our day it has been one story with many variations. With a few boughs and a bit of bark (the materials at hand in his day) the Indian built his special-type boat. Not far from the open Lakes is another material which we dig up, melt, and roll into thin plates, for the building of a boat especially suited to our times. The magic of Hiawatha lives on in the building of the long ships of today, only after the manner of Tubal Cain. Once, of a summer night, from the decks of the schooner *J. T. Wing*, on the shore of the Detroit River:



I thought I saw old Tubal Cain, his smithy glowing bright,  
Although it may have only been a passing steamer's light.  
I thought I heard his anvil ring, although I could not tell;  
It may be that I only heard a passing steamer's bell.  
I sometimes wonder if the myths, we think are dead and gone,  
Are still alive, and with us, and still are living on;  
For down within each deep dark hold, of vessels passing by  
Upon a star-lit summer night, there's more than meets the eye.  
The dark red earth we think of, as just another ore,  
Will meet with some strange alchemy, along the Erie shore;  
And so instead of inert dust — if we but only try,  
'Tis either swords, or pruning hooks, that we see gliding by.

And so it is in the hold of the schooner *J. T. Wing*. There the attempt is made to turn objects into ideas, through the alchemy of logical sequence in arrangement, so that our "young men shall see visions, and our old men shall dream dreams."

In that section of the Museum which is called "The Story of Lakes Shipping" there is a series of models of Lakes craft; all built to one scale, and arranged in chronological sequence, beginning with the dugout canoe and ending with the modern bulk carrier. Either the careful reading of the labels, or a brief talk by a guide, will dramatize the display and the visitor will see the characters who have moved across the stage of time. Here is the Indian, silently threading the intricate water courses in his birch bark canoe; Father Marquette, smoothing the trail for civilization; the colorful traders and trappers, and the voyageurs, blazing trail for commerce; La Salle, the indomitable, driving his *Griffin* through the storm while his captain cringed in fear of the elements; Captain Job Fish, venturing out into the treacherous waters of Lake Erie, in a new and untried steamboat. The list is too long to give here, but to the visitor in the museum ship they spring to life and it becomes clear that there were giants in the land, and still are.

The exhibit of obsolete lighthouse equipment tells in a graphic manner how, by the use of prismatic lens the feeble rays of oil lamps were captured, reflected, and concentrated so as to be visible 20 miles, and timed in their flashing so as to set them apart from any other light in their vicinity.

The "Ship Bridge" shows how the navigator of a steam vessel controlled his ship; the collection of builders' half-models tells the story of

hull design; the working knots of seamen are shown without the confusion of difficult ornamental knots; authentic, contemporary oils and water colors show the famous old lakers as they were in their various periods. The St. Lawrence Seaway is treated in a manner which brings out its importance to this area. The "Language of the Lights," a visitor-operated exhibit, shows the lights required on various types of vessels as they appear at a distance in the dark.

There is a hobby case too, usually holding work by one or more members of the Great Lakes Model Shipbuilders' Guild, and changed at frequent intervals. The Guild's first Annual Exhibition, Summer 1952, brought together the largest fleet of fine models ever shown at one time in Detroit. Nearly 600 visitors to this show purchased their tickets in advance, and many others paid as they entered. By request the display was kept intact for one week and on the last day 1000 persons viewed them. This group of craftsmen augment the work of the Museum by volunteer work of all kinds, and the draftsmen among them are doing a big job of perfecting plans of old ships which come to light from time to time, and reducing in scale some of the very large drawings of current ships. The Museum and the Guild working together, hope to collect every possible drawing of Lakes vessels, past and present, so that coming generations will not find themselves in the unhappy position of having no sources of information on by gone Lakes ships.

A fine gesture was made by a local industrialist, Mr. Gust Hofer, President of the Huron Engineering Corporation. A huge anchor of the old wooden-stock type was raised from Lake St. Clair. The Museum needed such an anchor to complete its collection, but could not immediately raise the \$250.00 asked. Mr. Hofer, hearing of the Museum's plight, immediately sent his company's check for the amount, and notified the Museum to pick it up.

Through such generosity the Museum of Great Lakes History grows. Although self-supporting as far as plant maintenance and the payment of salaries goes, no surplus has accumulated for such emergencies as the one met by Mr. Hofer. Serving the entire Great Lakes region it seeks exhibit materials from all sections, so that the story of the development of commercial shipping on these waters shall not perish.

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# The American Grain Trade of the Great Lakes, 1825-1873

By THOMAS D. ODLE

## PART V

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### THE DEVELOPMENT OF THE MARKETING SYSTEM OVER THE GREAT LAKES ROUTE, 1829-1860

THE DIVERSION OF THE grain and flour trade of the East North Central area from the Mississippi River route to the Great Lakes-Erie Canal route was made possible by the cheapness of the cost of transportation over the latter.

But this fact did not by itself guarantee a large-scale diversion of trade to the new route. The factor largely responsible for bringing it about was the dissatisfaction of Western farmers with the marketing system afforded by the Mississippi River route. But ironically the Western farmers were themselves partly to blame for the shortcomings of which they complained. In the early stages of the diversion of trade to the Great Lakes the new route afforded an organized system for marketing agricultural commodities whereas the Mississippi River route did not.

Such a development on the Mississippi River was held back because the river system was a free avenue open to anyone who wished to build a rude boat, load it with produce, and float the produce to market. Regular dealers were discouraged from entering the produce business on the river because of the ease with which irregular dealers could compete with them. Consequently, the grain trade on the Mississippi River was mostly conducted by the farmers themselves, and this continued to be the practice until well into the 1840's.<sup>1</sup>

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1. Louis B. Schmidt, "Internal Commerce and the Development of National Economy before 1860," *Journal of Political Economy*, vol. 48 (1939), p. 801, note 5; Isaac Lippincott, "Internal Trade of the United States, 1700-1860," Washington University, *Studies*, vol. 4 (1916), pp. 95-96.



Under this method of marketing, an individual farmer or a farmer and his neighbors constructed a flatboat for the trip down the river. These boats were generally built for use in the spring of the year because at that time the rivers were at a high level and a larger cargo could be carried.<sup>2</sup> The appearance of the flatboats in use on the Mississippi River system in the 1840's was described by a contemporary as follows:

They are simply an oblong ark, with a roof slightly curved from the center to shed rain. They are generally about fifteen feet wide, and from fifty to eighty, and sometimes one hundred feet in length. The timbers of the bottom are massive beams, and they are intended to be of great strength and to carry a burden of from two to four hundred barrels.<sup>3</sup>

When the spring rise came in the rivers, flatboats from all sections of the West began the trip to market. They stopped wherever there was a market for produce, but large numbers were forced to proceed down the river to New Orleans because the best market for ham, bacon, corn, wheat, and flour was in the deep South. After their cargoes were disposed of, the flatboats themselves were broken up and sold for lumber, and the farmer-merchants then returned home.

For several reasons the farmers in the West did not like this system of marketing. One reason was that flatboats from all over the West arrived at the markets at the same time with their products, and this served to depress prices. Again, the farmer-merchants found that their marketing trips were arduous and that they lost valuable time needed for spring planting.<sup>4</sup> The farmers of Knox County, in southern Indiana, who shipped their products to market on the Wabash River, summed up their complaints in 1844 as follows:

The uncertainty of the time of shipment, and the short period during each season [of the spring rise of the Wabash River], have prevented the merchants of this country embarking as regular dealers in the produce business. The consequence has been, the farmers have, much to their injury, been compelled

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2. See the excellent account of Mississippi River trade in U. S. Treasury Department, Bureau of Statistics, *Report on the Internal Commerce of the United States*, 1888, pp. 178-234.

3. John Banvard, *Description of Banvard's Panorama of the Mississippi River*, p. 2.

4. *Journal of the Ohio House of Representatives*, January 3, 1822, p. 20; Thomas Ford, *A History of Illinois, from Its Commencement as a State in 1818 to 1847*, pp. 98-99; Frederick Gerhard, *Illinois as It Is*, pp. 67-68.

to ship their own products . . . and too often does it happen that they lose one year's cropping in disposing of the cropping of the previous year, and that, too, at a ruinous sacrifice, both in their health and their fortunes.<sup>5</sup>

Although merchants on the Mississippi River route, unless they used flatboats, were discouraged by the competition of the farmers from entering the produce business, the development of shallow-draught steamboats on the upper Ohio, which were good freight carriers, enabled regular dealers to compete in the produce trade. The owners and agents of these boats became dealers in agricultural commodities, and in the 1840's this method of marketing began to replace the flatboat trade on all the rivers of the Mississippi system.<sup>6</sup> Since shallow-draught steamboats could not be profitably used on the lower Mississippi, their cargoes were transshipped at Cincinnati and St. Louis to the larger vessels used in the downriver trade to the South.<sup>7</sup>

The slowness with which a regular marketing system was developed on the Mississippi route and the inadequacies of this system fostered the diversion of trade to the Great Lakes-Erie Canal route. The large wagon trade, for example, which sprang up to Toledo and Chicago in the late 1840's, was an expression of the Western farmers' dissatisfaction with the water route.

By the late 1840's the Mississippi route was able to offer a somewhat improved marketing system, but by that time the area of competition between the two routes had moved farther westward (because of the movement of the center of grain production), and the contest between them had largely narrowed down to competition between St. Louis on one hand and Chicago and Milwaukee on the other.<sup>8</sup> This developed into

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5. *Senate Document*, No. 241, 28 Congress, 1 session, p. 3.

6. U. S. Treasury Department, Bureau of Statistics, *Report on the Internal Commerce of the United States*, 1882, appendix, p. 166; Louis C. Hunter, *Steamboats on the Western Rivers, An Economic and Technological History*, pp. 83-84; 353-356.

7. Felix T. Haig, *Notes on the River Navigations of North America*, p. 55; A. B. Chambers, *Memorial of the Citizens of St. Louis, Missouri to the Congress of the United States, Praying an Appropriation for Removing the Obstruction to the Navigation of the Western Rivers, for the Improvement of the St. Louis Harbor and for Other Purposes* (1844), p. 17.

8. *Eighth Census of the United States, Agriculture*, clv-clvii; Wyatt W. Belcher, *The Economic Rivalry between St. Louis and Chicago, 1850-1880*, pp. 107-110.

a contest for the grain and flour trade of the upper Mississippi Valley. St. Louis was handicapped in its efforts to tap the trade of this area by the Des Moines and Rock Island rapids in the Mississippi River and also by the lack of facilities on the route for handling bulk grain. Grain shipments to St. Louis were handled in sacks. Elevator facilities for the handling of bulk grain were not introduced until the St. Louis Grain Elevating Company completed the first elevator in that city, in 1865. About the same time other forward-looking businessmen formed the Mississippi Valley Transportation Company to transport bulk grain and other commodities on the lower Mississippi in barges drawn by towboats instead of in steamboats. This company erected a transfer elevator at New Orleans for the purpose of transferring bulk grain from the barges to ocean vessels, and in 1868 an elevator was completed at New Orleans for storing as well as transferring grain.<sup>9</sup> However, these improvements came too late to effect a diversion of the upper Mississippi grain trade from its accustomed Great Lakes channel. The new facilities only improved the handling of grain and flour enroute to the southern markets.<sup>10</sup>

The competition of farmer-interlopers which held back the development of an organized marketing system on the Mississippi was not encountered on the various canal systems connecting with the Great Lakes. It required considerable capital to construct a canal boat — much more than to construct a flatboat — and consequently farmers were discouraged from building their own canal boats and doing their own marketing. As a result, merchants regularly engaged in the produce business over the Great Lakes-Erie Canal route much sooner than was the case over the Mississippi route.

On both the Erie Canal and on the western canals connecting with the Great Lakes the marketing of agricultural commodities was handled by

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9. U. S. Treasury Department, Bureau of Statistics, *Report on the Internal Commerce of the United States*, appendix 15; see also, Union Merchants' Exchange, *Annual Statement of the Trade and Commerce of St. Louis for the Year 1865*, pp. 11-12.

10. *Proceedings of the River Improvement Convention, Held in St. Louis, February 12 and 13, 1867*, p. 40.



the canal boat "lines." These lines were simply business affiliations of canal boat owners.<sup>11</sup>

The first to be developed were those on the Erie Canal. They offered a through marketing and transportation service for the entire length of the Erie Canal. The agents of these affiliations at various points along the Erie Canal advertised themselves as "commission and forwarding agents." The *commission* part of their title meant that they engaged in the marketing of agricultural produce for a commission, and the *forwarding* part indicated that they were also general freight agents. The combination of these two functions was very practical as the major part of the freight business on the Erie Canal consisted of the transportation of agricultural commodities; and the canal boat lines, by offering a marketing service in addition to their transportation service, were able to assure themselves of a large business.<sup>12</sup>

The Erie Canal boat lines served the markets for flour and grain in the heavily populated East. At Albany and Troy, the eastern termini of the Erie Canal, these products were transferred to coasting vessels for shipment and distribution down the Hudson River and along the Atlantic coast. By 1830, however, it had become more common to make the transfer from canal boats to coasting vessels in New York harbor.<sup>13</sup>

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11. Despite the importance of the canal boat lines in the development of the West this topic has not received the attention it deserves. The sources for the present study were found mainly in advertisements in the Buffalo city directories, and in the directories of other lake cities. See also Clark Waggoner, *History of the City of Toledo and Lucas County, Ohio* (1888), pp. 450, 457; J. Disturnell (publisher), *New York As It Is in 1835*, pp. 150-151; and the letter-books and correspondence of H. M. Hunt and T. Roby, storage, commission and forwarding agents of Detroit, Michigan, *Thomas Palmer Papers*, Burton Historical Collection, Detroit Public Library.

12. *Crary's Directory for the City of Buffalo, 1841*, advertising section; *H. N. Walker's Buffalo City Directory, 1842*, advertising section. As early as 1829 the New York Canal Commissioners reported that grain products paid more than one-half of all tolls paid on the eastward trade. *New York Assembly Document*, No. 47 (1830), p. 18.

13. *House Executive Document*, No. 189, 22 Congress, 1 session, p. 21; Haig, *Notes on the River Navigations of North America*, pp. 48-49. In 1835 the two tow-boat companies in operation on the Hudson were the Troy Line and the Swiftsure Line. Disturnell, *New York As It Is in 1835*, p. 150. On the obstructions to navigation in the Hudson River see, John S. Curtiss, "The Sloops of the Hudson, 1800-1850," *New York History*, vol. 31 (1933), p. 67.

This was because it was found to be more economical to use larger vessels in the coasting trade and these larger vessels were unable to proceed up the Hudson to Albany and Troy owing to obstructions in the navigation of that river. Under this latter system the canal boats bearing grain and flour were lashed together and towed down the Hudson to New York harbor, some 12 or 15 at a time.<sup>14</sup>

In 1833 the following canal boat lines were in operation over the Erie Canal: Troy and Erie Line, Pilot Line, Washington Line, New York and Ohio Line, Merchants' Line, Hudson and Erie Line, Clinton Line.

These lines extended their transportation and marketing services to the West via Lake Erie by forming affiliations with vessel owners and by appointing freight agents to represent them in the ports along the Ohio shore: Fairport, Cleveland, Ashtabula, Huron, Milan, and Sandusky. Like their counterparts in the East these Western agents also advertised themselves as "commission and forwarding agents." The grain and flour which they received from farmers and millers were shipped on Lake vessels and over the Erie Canal and was sold in the East by the eastern commission and forwarding agents of the Erie canal boat lines.<sup>15</sup>

This marketing system was extended inland from the Lakes on the completion of the Ohio and Erie Canal in 1833. Affiliations of canal boat owners were also formed on this canal and these lines in turn affiliated themselves with an Erie canal boat line. Thus the commission and forwarding agents of the canal boat lines on the Ohio and Erie Canal were affiliated with a marketing and transportation system which extended as far east as New York City.<sup>16</sup>

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14. *Harbor-Master of the Port of Albany, Annual Report, New York Assembly Document, No. 138* (1840), p. 3.

15. Julius P. Bolivar MacCabe, ed., *Directory Cleveland and Ohio City for the Years 1837-38*, advertising section; *H. N. Walker's Buffalo City Directory, 1842*, see the advertisement of the "Commercial Transportation Co.," advertising section.

16. See the advertisement of Griffith, Pease & Co., of Cleveland, who advertised themselves as agents of the Troy and Erie Line (Erie Canal), produce merchants and dealers in salt, and proprietors of a line of canal boats on the Ohio and Erie Canal. MacCabe, ed., *Directory Cleveland and Ohio City for the Years 1837-38*, advertising section.

This same system also developed on the Miami and Erie and Wabash and Erie Canals serving Toledo, and on the Illinois and Michigan Canal serving Chicago. At other ports, such as Detroit, which were not served by canals, the Erie canal boat lines were represented by commission and forwarding agents who served the interests of Lake vessels operating as affiliates of an Erie canal boat line. These agents also formed business connections with inland produce dealers.<sup>17</sup>

The grain and flour trade on the Great Lakes began to develop in the late 1820's, and the following table of the produce passing to the East on the Erie Canal through Buffalo and Oswego indicates the amount of Western business handled by the Great Lakes marketing system during this early period:<sup>18</sup>

Year	Buffalo		Oswego	
	wheat bushels 60 lbs.	flour barrels 216 lbs.	wheat bushels 60 lbs.	flour barrels 216 lbs.
1829	3,640	4,335		
1830	149,219	31,810		
1831	186,148	62,968		
1832	100,761	21,932	not available	
1833	114,337	78,324		
1834	111,798	79,847		
1835	168,012	100,833	51,962	123,421
1836	304,090	139,178	112,224	94,667
1837	450,350	126,815	10,025	66,002
1838	933,117	277,620	59,710	76,098
1839	972,156	357,446	106,210	110,390

Prior to 1839, these grain and flour shipments were transshipped to canal boats at Buffalo and Oswego but they were not sold there. Instead, the produce was taken farther along the Erie Canal to Rochester, Utica, Albany and New York City and sold in those centers.<sup>19</sup>

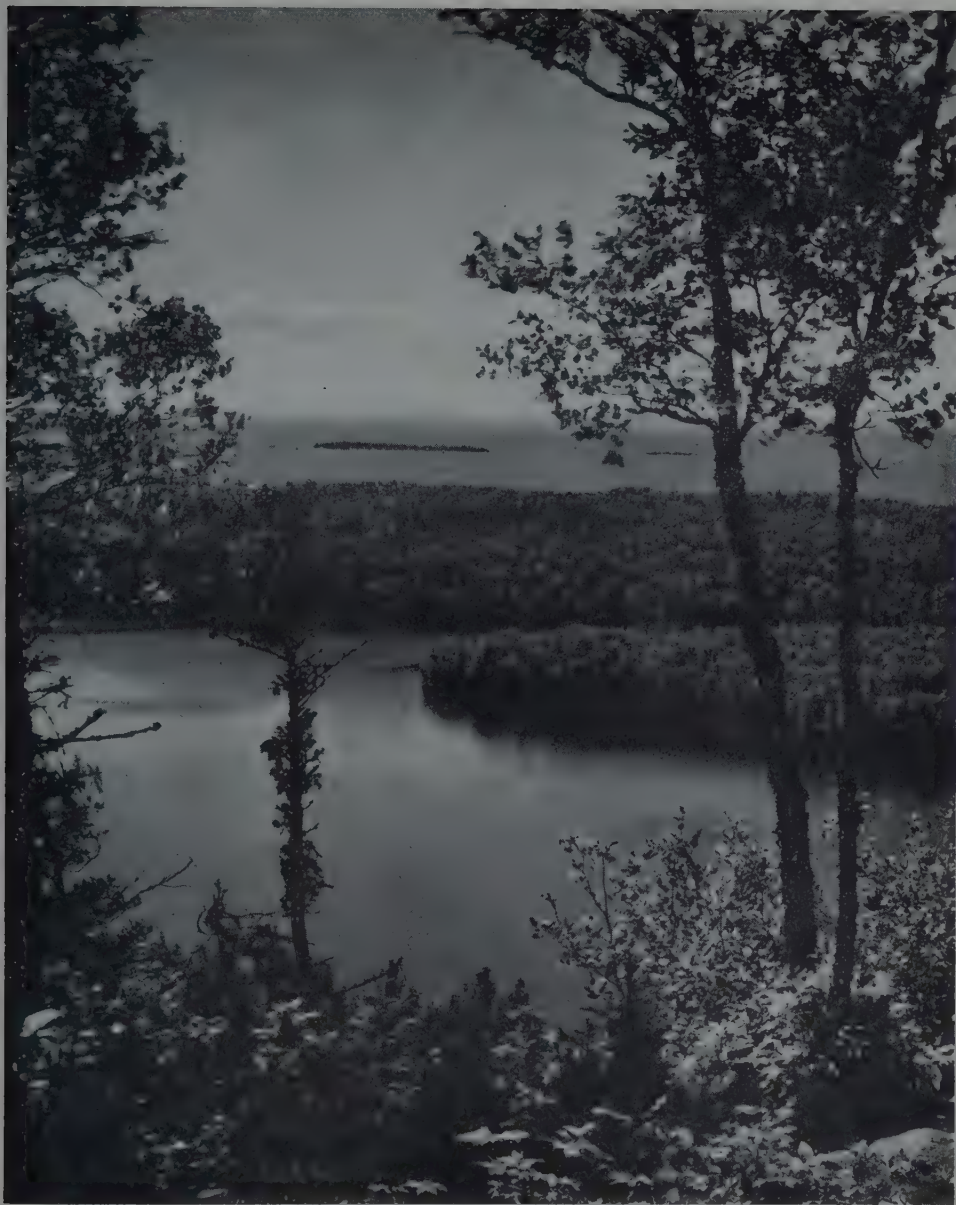
17. *Directory of the City of Detroit for 1837*, advertising section; *Directory of the City of Detroit for 1845*, advertising section; Robert Fergus (comp.), *Directory of the City of Chicago, Illinois, for 1843*, *Fergus Historical Series*, No. 28, advertising section.

18. *Canal Commissioners, Annual Report, New York Assembly Document*, No. 65 (1836), p. 52; *Auditor of the Canal Department, Annual Report, New York Assembly Document*, No. 133 (1876), table No. 26.

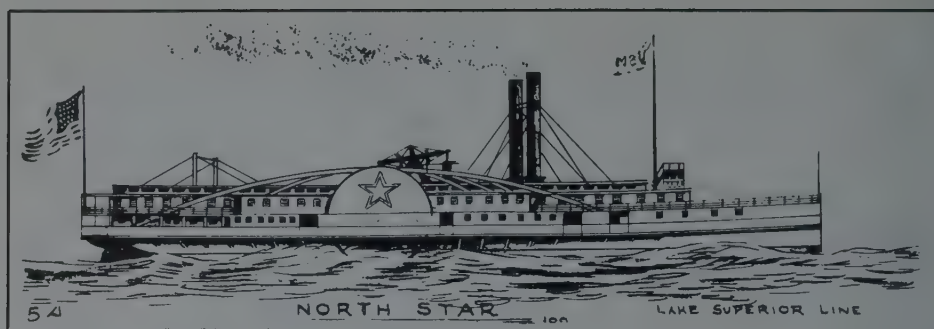
19. U. S. Treasury Department, *Statistics of the Foreign and Domestic Commerce of the United States* (1863), 161, footnote.

(To be continued)





DUNCAN BAY and Lake Superior from Lookout Louise, Isle Royale National Park.  
Photograph by W. Ray Scott, National Park Concessions, Inc. (See page 234.)



THE *North Star*, Lake Superior Line, 1854, from drawing by Erik Heyl. (See page 283.)



THE *Onoko*, first iron ship built on the Great Lakes in 1882 at Cleveland. Photograph from the Eugene Herman Memorial Collection. (See page 245.)



THE SIDEWHEEL FERRY, *G. A. Boeckling*. Photograph gift of R. G. Wendt. (See page 286, also *INLAND SEAS*, Fall 1952, p. 204.)

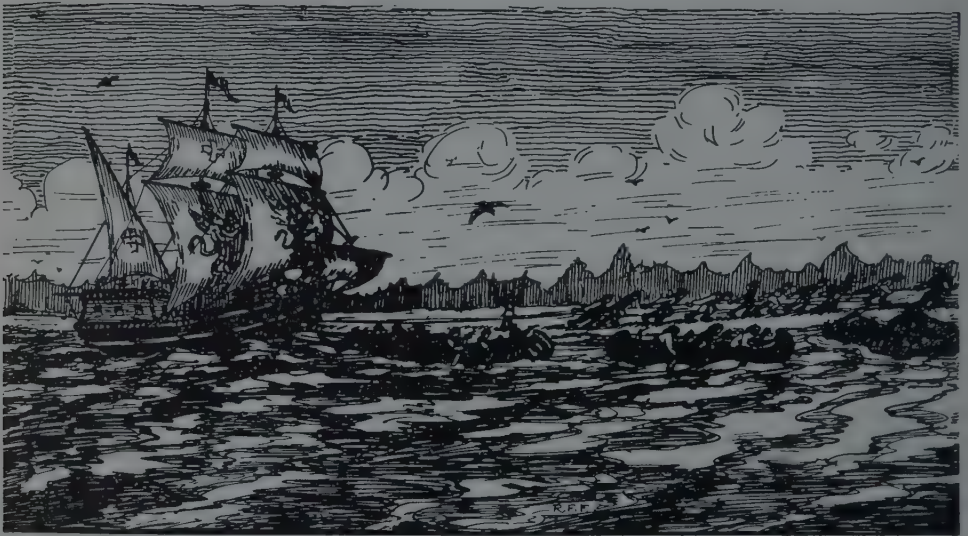


THE *Western States*. Photograph gift of William A. McDonald. (See page 286.)





FORT FRONTENAC, Lake Ontario, Seigniory of La Salle and source of supplies for the *Griffon*. (See page 223.)



THE *Griffon* is navigated up the Black Rock rapids to Lake Erie, August 7, 1679.  
Drawings by Roy Fleming. (See page 223.)



THE *Griffon* picks up Tonty and his men waiting at Detroit Strait, August 11, 1679.  
(See page 223.)



LOADING FURS on the *Griffon* at Washington Island, Green Bay, September, 1679.  
Drawings by Roy Fleming. (See page 224.)



THE *Crescent City* on her way up through the American locks. (See page 229.)



CANADIAN LOCKS at Sault Ste. Marie with upper gate ripped off. Photographs from the Captain Frank Rice Collection. (See page 232.)





INTERIOR of the steamer *Manhattan*, 1853. (See page 291.)



THE *George W. Peavey*. Photograph from the Dinham Collection. (See page 282.)



THE J. T. Wing, Museum of Great Lakes History, Detroit Michigan. Photograph by Harold G. Williams. (See page 242.)



ENTRANCE to the Museum of Great Lakes History, Detroit, showing bronze Lyle gun. Photograph by courtesy of Captain J. E. Johnston. (See page 242.)

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# History of The Cleveland Yacht Club 1948-1952\*

By AL MASTICS

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**D**URING the year 1948 the Cleveland Yacht Club marked time, with no new developments of note. But the following year was a far different story, and 1949 will always stand out as one of the club's red letter years. Paul D. Gayman was the commodore and he appointed a willing and hard working group of committees.

For the annual "Fish Fry," customarily held in April, Bill Wood put on one of his most elaborate minstrel shows. He designed the stage and scenery that was then built by his brother, Henry, and painted by Bill, and he also wrote the dialogue and lyrics. It was a walloping success, so much so, in fact, that the ladies demanded it be put on again for the "Fitting Out" party.

There were free Saturday night dances. The "Pirates' Ball" was revived. For the Midsummer Regatta show, the hackneyed and tawdry professional acts with which it had formerly been embellished were dispensed with. An all-member cast was recruited, and they put on a fast moving variety show that even Olsen and Johnson would have had a hard time to beat, with Ferd Brasseur as the master of ceremonies. A duck that was sacrificed for the show added much of the humor.

The Yankee class, introduced the year before through the efforts of Robert Albrecht, became active with four boats racing. The R's were still going strong. The Thistle fleet increased to twenty-three boats.

But 1949 was a momentous year for quite another reason. The lease executed between the club and the Rocky River Island Company on

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\* This continues up to the present the *History of the Cleveland Yacht Club* by Al Mastics. Parts I and II appeared in *INLAND SEAS*, vol. 4, pp. 185-194; 238-244; Fall and Winter, 1948. Addendum and errata to these parts appear on page 267.



January 12th, 1945, carried a proviso that gave the club the option to purchase the unissued capital stock and the control of the Island Company until January 1st, 1950.

Many members felt that the club should exercise that option. Gayman, in the meantime, had moved out of town. Vice Commodore W. Whitney Slaght took over in his absence. He appointed and directed a militant committee to carry on the negotiations. Members of this committee were Lester C. Hart, Don H. Gearheart, W. Lawrence James and James T. Van Dorn. Fred Bissinger was appointed special legal advisor for the group.

Slaght and his committee worked hard and diligently, holding many meetings. Because of wide differences of opinion between the club and the owners of the island, negotiations bogged down on several occasions.

Finally, on December 27th, 1949, just four days before the deadline, after much legal maneuvering, the deal was consummated. The club once more was the owner of its island domain. The purchase price was \$137,500.00 which included approximately \$20,000.00 in cash in the Island Company's till. This \$20,000.00 plus an additional \$50,000.00 was paid in cash and the balance evidenced by a mortgage. A word of credit should be given here to Past Commodore Neville C. Foster. Over considerable objection, he had induced the directors to raise the dues in 1947. The economic program that followed, with the increased revenue from dues, provided the funds needed to effect the purchase of the island.

Van Dorn, Slaght and Harry Reichard were elected as a committee to manage the club's business affairs. Van Dorn, as chairman of the management committee devoted most of his time without compensation to the project. The other members worked equally as hard. The committee did an excellent job. The commercial operations of the club were managed as well and as efficiently as any sound business firm.

Slaght became Commodore in 1950—the first year that the club owned and operated all of its facilities. Lester C. Hart took over the club's helm in 1951. His administration was an important one in the club's new era. At the close of 1951, Van Dorn resigned from the management committee. James Winton replaced him and Slaght was elected chairman.

Commodore Don H. Gearheart guides the club's destinies in 1952. Cleveland Yacht Club is again big business. The senior membership list

is closed with 550 senior members, 500 of them being voting members and 50, although paying the same \$100.00 initiation fee and \$100.00 annual dues (plus 20% federal tax) are on an interim basis to become full members when such vacancies occur. There are 75 junior members and a long list of non-residents. Whit Slaght, Jr., is assistant secretary and in charge of an office staff of three people. Employees of the club number close to 50. Claus Tiedeman is yard superintendent. Ray Erdmann is still the club steward. The mortgage on the island has been reduced to approximately \$28,800.00.

Dorrie (Mrs. Wilbur H.) Peters supervised the complete redecoration of the club house. The result is a much more formal atmosphere in the dining room and lounge. Efficient machinery has been installed throughout the yard. New kitchen equipment and ventilating systems add to the members' comfort.

The entire island is being bulkheaded with steel. The north basin for small craft has been rehabilitated. A new deck is being installed around the swimming pool and new pumps assure clean water for the bathers. Uniformed Pinkerton guards keep a close watch over the gate and patrol the island.

Under Chairman H. Clay Stier, the Cleveland Yachting Club Junior program has become a model upon which yacht clubs all over the country are patterning their Junior organizations. Cleveland Yachting Club Juniors have their own fleet of Candy class sloops and dinghys and their own club boat.

Past Commodore Neville C. Foster put up a new trophy for a racing cruise to Catawba Cliffs Beach Club. Robert E. Williamson presented the Doress Bowl to the club as a permanent trophy for the Class R club championship. William Irwin placed the John Lovett trophy into competition for the Thistle class.

Among all these moments of progress there was a sad note too. Past Commodore James C. Heintz who had been one of the staunch supporters of the club, ill for a long time now, passed away.

Cleveland Yacht Club is once again on the crest with a well-earned reputation for hospitality in a beautiful natural setting.

## 1952 OFFICERS

Commodore  
Vice-Commodore  
Rear-Commodore  
Secretary  
Treasurer  
Fleet Captain  
Fleet Surgeon

D. H. Gearheart  
W. L. James  
W. W. Rapprich  
R. C. Gray  
N. H. Hammink  
N. H. Hammink  
Dr. W. H. O'Dell

## 1952 DIRECTORS

L. C. Hart  
W. L. James  
H. G. Reichard  
J. A. Shomer  
R. C. Gray

D. H. Gearheart  
N. H. Hammink  
K. J. Pelton  
J. A. Sutcliffe  
F. I. Bissinger

L. L. Malm  
A. A. Mastics  
W. W. Rapprich  
W. W. Slaght  
R. G. Heintz

## PAST COMMODORES OF C. Y. C.

1878	T. H. Smead
1879-1894	George W. Gardner
1895	Luther Allen
1895-1913	George W. Worthington
1914	Albert Y. Gowen
1915	F. W. Roberts
1916-1917	Harry Parsons
1918-1920	Josiah Kirby
1921	Eugene Quigley
1922	Harry Parsons
1923-1926	E. E. Noble
1927-1928	J. H. Reed
1929-1930	E. E. Noble
1931	Dr. Stanley Gardner
1932	William A. Thomas
1933	Milton N. Gallup
1934	E. E. Noble
1935	Wilbur J. Wright
1936	Harry Kendricks
1937	Robert G. Heintz
1938-1939	James C. Heintz
1940	J. Ray Davis
1941	Alexander Winton, Jr.
1942	Dr. John F. Novatney
1943	Lee E. Wilson & Ernest T. Kindt
1944	George Spencer
1945	Al. J. Salzer
1946	Neville C. Foster
1947	James Van Dorn
1948	Theodore M. Steinhart
1949	Paul D. Gayman
1950	W. W. Slaght
1951	L. C. Hart



## COMMODORES OF LAKEWOOD YACHT CLUB MERGED WITH C. Y. C.

1900	Thomas R. Morgan
1901	George O. Campbell
1902	Myron B. Vorce
1903-1904	A. J. Phelps
1905	F. W. Wakefield
1906	Warren J. Brodie
1907	William F. Nash
1908-1911	Alexander Winton
1912	Albert Y. Gowen

Addendum and Errata to *History of the Cleveland Yacht Club*, Parts I and II, INLAND SEAS, Fall and Winter, 1948, vol. 4, pp. 185-194; 238-244.

A. R. Landreth was club secretary from 1897 to 1900. E. E. Pettibone succeeded him.

*Page 191.* The old wooden toll bridge over Rocky River was abandoned in 1890 and was replaced by a steel span. The wooden bridge had stood several hundred feet south of the present concrete structure. The steel bridge has its stone piers still standing.

*Page 191.* The Lakewood Yacht Club building was moved from Clifton Park beach to the island on June 1st, 1908, while Alexander Winton was commodore. The island was then already owned by the club, having been purchased the year before, and many improvements had been made.

*Page 194.* It was in 1907, not 1913, that de Forest used the yacht *Electra* at Put-in-Bay to make the world's first broadcast by wireless of a sporting event.

The "Follies of Lakewood Yacht Club" was presented at the Cleveland Theatre on St. Clair Avenue. A second show was produced by Bill Wood. It was the "C. Y. C. at Strathmore Castle" and was on the stage of the Duchess Theatre at Euclid Avenue and East 55th Street in 1916.

During 1916 the first Cleveland Power Squadron was organized. E. G. Griesse was elected the first commander.

During 1918 the club had 1,500 members. The following year, Kirby evolved an almost fantastic plan to float a \$500,000.00 bond issue. Initiation fee was to be raised from \$500.00 to \$1,000.00 and dues to \$75.00. Out of the funds realized from the bond issue a huge new clubhouse was to be built. In addition, an east shore station was to be established twelve to eighteen miles east of the Public Square for the convenience of east side members. \$20,000 was to be spent to buy Ballast Island from the Gardner and Longworth families and a \$50,000.00 clubhouse was to be built upon it.

There had been an earlier fire at C. Y. C. During 1918, as the result of carelessness, the old Lakewood Yacht Club building that had been joined to the building moved from East 9th Street and used as a locker house, caught fire and was completely destroyed. Kirby was commodore. His administration replaced the fire gutted building with a large modern kitchen to serve the new dining room. The dining room was built as an addition adjoining the east side of the clubhouse and extended almost to the river's edge.

*Page 242.* The ice house was originally a dock box for Alexander Winton's *La Belle*. It later became a power house to protect the steam engine and winch that was used to operate the marine railway car.

*Page 242.* The first Roberts race was sailed in 1930, not 1932, while Dr. Stanley W. Gardner was commodore. The winner was the Alden designed schooner *Melodie* from Toledo Yacht Club.

# The Story of the D & C

By FRANCIS DUNCAN

## THE EXPANSION OF THE COMPANY 1876-1898\*

### CHAPTER 2, PART I

"We have not been satisfied in operating our different lines unless we could show an increase of traffic from year to year, and further we have got the reputation of keeping abreast of the times." (David Carter, Directors' Meeting, Sept. 7, 1898, *Record of the Board of Directors' Meetings* (1897-1898), p. 23. *D & C Papers*.)

TWO SHIPS ON A single route had been the characteristic operating pattern of the Detroit & Cleveland Steam Navigation Company from its incorporation in 1868 through the panic of 1873. In the years that followed the depression until the rechartering of the company in 1897, expansion became the dominant theme. From two steamers the fleet grew to five vessels, two of which maintained service on the traditional Detroit-Cleveland run, while two others carried tourists from Toledo and Detroit to summer resorts on Mackinac Island. A fifth side-wheeler ran between Cleveland, Put-in-Bay, and Toledo. Ledgers and minutes of the directors' meetings contain the involved, complicated and often obscure, financial details that were fundamental to the growth of the company, but across the columns of dry and faded figures and terse entries, one can hear only a rare and occasional echo of the days when there were finely dressed passengers, sweating stevedores and rugged sailors on the docks.

Business was only beginning to grope its way out of the depression<sup>1</sup> when the officials of the D & C were faced with the problem of build-

\* This is part one of the second chapter of Mr. Duncan's definitive history of the D & C. Chapter one appeared in four parts in *INLAND SEAS*, vol. 7, Winter 1951; vol. 8, Spring, Summer, Fall, 1952.

1. The gross earnings of 1877 exceeded those of 1876 by 3 per cent. Calculated from: *Records of the Stockholders' Meetings* (1868-1897), pp. 34, 38. *D & C Papers*.

ing their first steamer. The *R. N. Rice* lay at her Detroit dock at the foot of Shelby Street on the evening of June 10, 1877. Although the side-wheeler was nearly deserted, a few hours would see her filled with passengers and freight, ready to make the usual voyage to Cleveland. About the hour of 9:30, flames appeared around the after cabin, caused, it was believed, by an explosion of a kerosene lamp. It was ten minutes before an alarm was sent to call the city fire companies to the river. As the firemen fought the blaze from the river bank, Captain Campbell of the ferry *Fortune* and Captain Horn of the ferry *Excelsior* ran close aboard the *R. N. Rice* to give the aid of their hoses. In an hour the fire was over, but in that time the after cabin had been destroyed and the forward one badly damaged. To a doubting marine reporter, Carter, who had witnessed the fire, remarked that in six weeks she would be in commission again.<sup>2</sup> While the *R. N. Rice* still smouldered, the steamer *Pearl* was engaged to make the scheduled trip to Cleveland.

The *Morning Star* and the *R. N. Rice* were the only two steamers that the D & C lost in its long career on the lakes. Fortunately, there were no fatalities during the fire, and the flames were extinguished before the engines were greatly harmed. Unlike the *Morning Star*, the *R. N. Rice* was insured for \$25,000.

As the *Pearl* was small and unable to accommodate the traffic, she was replaced by the steamer *Saginaw*, which was chartered to maintain the route with the *Northwest*.<sup>3</sup>

At least two courses lay before the navigation company; one was to rebuild the steamer, while the second was to use the relatively undamaged engines of the *R. N. Rice* to power a new ship. Before a directors' meeting was held to make the decision, Carter was sent on an inspection trip of the eastern shipyards to gather information on the latest practices of ship-building.<sup>4</sup> Upon his return the officials of the firm, meeting on July 3, 1877, listened to his report. Carter urged that the *R. N. Rice* be abandoned, as her hull showed serious signs of rot and decay. To replace her

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2. *Detroit Advertiser and Tribune*, June 11, 13, July 2, 1877.

3. *Detroit Advertiser and Tribune*, June 18, 1877. The *Saginaw* had been operating between Cleveland and Port Stanley.

4. *Ibid.*, June 26, 1877.



he advised that the company place an order for a vessel built with a hull of wooden sheathing over iron framework. Such a method of construction, known as a composite hull, was believed to combine the strengths and avoid the weaknesses of all-wood or all-iron construction. The life of wooden steamers was shortened by attacks of rot and decay, while the plates of iron vessels were heavy and brittle. A composite steamer would possess a light and resilient hull, reinforced by the strength of iron framework. Given time every season to replace planking, the argument ran, a composite hull might last indefinitely.<sup>5</sup>

It was one thing to decide to build a new ship, and another to work out the financial arrangements. Exclusive of the machinery of the *R. N. Rice*, the estimated cost of the projected steamer came to \$95,000.<sup>6</sup> This sum simply was not in the treasury, for after all accounts had been settled at the end of 1876, only \$1,462.56 remained.<sup>7</sup> Taking refuge under the provisions of the act by which the company had been incorporated, the directors decided to levy an assessment of \$5.00 a share on the capital stock. The amount was to be paid in five monthly installments beginning on September 1, 1877, and ending on May 1, 1878. On 12,000 shares, \$60,000 would be realized which, with the season's earnings, would be sufficient to defray the cost of the new ship.

The plan was not completely successful from the viewpoint of the stockholders, for in the autumn Owen had to report that there were some who could not pay the levy. Nothing could be done except to order Carter, as Secretary, to take the necessary steps provided in the "bye laws" to arrange for the sale of the delinquent shares. The capital "paid in" listed in the report of the eleventh annual stockholders' meeting of February 4, 1879, reveals that the entire assessment was collected. A comparison of the roll of stockholders between 1877 and 1879 shows that the levy caused 4,622 shares to change hands. The greater portion of the amount was absorbed by three men, John Owen, who received

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5. *Ibid.*, July 6, 1877.

6. Directors' Meetings, July 17, 1877, *Record of the Board of Directors' Meetings* (1868-1897), p. 124. *D & C Papers*.

7. Ninth Annual Stockholders' Meeting, Feb. 6, 1877, *Records of the Stockholders' Meetings* (1868-1897), p. 34. *D & C Papers*. The net earnings had not been divided into dividends, but spent to purchase an engine and rebuild the *North-west*.

1,187 shares, James McMillan with 1,358, and John S. Newberry, who obtained 1,357 shares.<sup>8</sup> Despite the fact that the latter two received most of the stock that was sold, Owen, with a total of 4,067 shares, remained the largest single owner. The stock acquired by McMillan and Newberry represented the entire holdings of the two men. Although new names appeared upon the list of stockholders, there was no great change in the number of persons who owned the D & C. In 1877 there were fifteen shareholders; two years later there were seventeen.<sup>9</sup> More important than the small increase in the total number of stockholders was the addition of the name of McMillan to the roster.

James McMillan and John S. Newberry were prominent Detroit businessmen. Newberry was born in Oneida County, New York, in 1826. Moving with his family to Michigan, he attended the University of Michigan and graduated with honors. James McMillan, born at Hamilton, Ontario in 1838, came to Detroit in 1855. Both men were associated in the establishment of the Michigan Car Company, which manufactured railroad cars. This was but one of the several enterprises in which the two were engaged. While Newberry was to have little connection with the navigation company, McMillan eventually became a major stockholder and the second president of the D & C. As he was active in politics, becoming a Republican Senator from Michigan in 1889, he was often represented in the affairs of the company by members of his closely-knit family.

The steamer which resulted from the stock levy was built at Wyandotte, Michigan, and began her long career in the spring of 1878.<sup>10</sup> For several reasons the *City of Detroit* marked an important step in the history of the D & C. Not only did she begin the tradition that every vessel launched for the company was to carry the name of one of the ports of call,<sup>11</sup> but she was the first of many steamers built to the specifica-

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8. List of Stockholders, Annual Stockholders' Meeting, Feb. 1, 1877; Annual Stockholders' Meeting, Feb. 4, 1879. *Ibid.*, pp. 35, 43-44. *D & C Papers*.

9. In the Articles of Incorporation there are listed eleven names, which with Mrs. Evans, total twelve. Of this original number, six remained by 1879.

10. *Detroit News*, May 7, 11, 13, 1878.

11. The *Eastern States* and the *Western States*, which were owned by the company until it retired from operations, were originally built and owned by the Detroit & Buffalo Steamboat Company.

tions and orders of the officials of the firm, and with her the D & C abandoned wooden construction. Measuring 234 feet in length, 36 feet in beam, and drawing 13 feet, she cost \$125,000 to put into commission.<sup>12</sup> The entry into service of the *City of Detroit* was a social event, for a public inspection and a reception followed her trial run. Those who were fortunate enough to get a ticket, observed the *Detroit News*, "will see one of the most elegant steamers ever run on western waters."<sup>13</sup>

Before the *City of Detroit* was a year old the subject of a third vessel engrossed the attention of the directors. Like her predecessor, the new steamer was built at Wyandotte, Michigan. At a cost of \$154,673.07<sup>14</sup> she was launched in 1880 by the Detroit Dry Dock Company. Christened the *City of Cleveland*, she had the advantage of the latest engineering techniques in the design of her paddle wheels. As one enthusiastic Detroit newspaper wrote, her speed of a little over twenty miles an hour made her "... assuredly the fastest boat in America. F. E. Kirby designed her feathering wheels, and they are the first of the kind in use on inland waters."<sup>15</sup> Although originally intended for the Detroit and Cleveland

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12. Mansfield, *History of the Great Lakes*, vol. 1, p. 463; Carlisle, *op. cit.*, p. 395, both state the cost as \$175,000. The figure \$125,000 comes from a loose leaf notebook entitled *General Manager, Detroit & Cleveland Navigation Company, D & C Papers*.

13. *Detroit News*, May 7, 11, 13, 1878.

14. Mansfield, *op. cit.*, vol. 1, p. 463, states that the cost was the same as the *City of Detroit*, which according to his figures, would be \$175,000. The loose leaf notebook entitled *General Manager, Detroit & Cleveland Navigation Company, D & C Papers*, gives the cost as \$154,673.07.

15. *Detroit News*, May 14, 1880. Frank E. Kirby was a young marine architect who was to become famous in designing passenger vessels for the Great Lakes, East Coast, and Hudson River. Retained as a consulting engineer, he planned all of the passenger vessels which comprised the D & C fleet just prior to the abandonment of marine operations by the company.

The development of feathering side-wheel paddles was a great improvement in this method of propulsion. The older type of wheel had its blades, paddles or buckets, as they were sometimes called, rigidly fixed as part of the radius of the wheel. The disadvantage was that as the wheel revolved, the paddles entered the water at such an angle as to slap the surface rather than cut into it. This was both a waste of power and caused considerable noise, as Kipling noted in his *Mandalay*, "Can't you 'ear the paddles chunkin' from Rangoon to Mandalay?" Feathering wheels have flexible blades so that as the wheel revolves, the blades rotate slightly and enter the water at an angle more perpendicular to the surface and remain in that position longer before they are withdrawn from the water.



run, the steamer's route lay north through Lake Huron in connection with the Lake Superior Transit Company to Houghton, Michigan.<sup>16</sup>

Two years after the *City of Cleveland* began her trips up the Lakes, Carter brought before the directors' meeting of November 16, 1882, a proposal from the Detroit Dry Dock Company to build another ship. For \$125,000 the dry dock firm promised an iron hull, engines and, "in fact the boat complete ready for her cabin, Deck and Kitchen outfit \* \* \*." <sup>17</sup> Costing \$150,000 and launched in 1883 as the *City of Mackinac*, the steamer was paired with the *City of Cleveland* on the Mackinac run which the latter vessel had inaugurated the previous year.<sup>18</sup>

For the first time, the fleet of the D & C numbered four ships. The *Northwest* and the *City of Detroit* comprised the "Lake Erie" or "Cleveland" Division, while the *City of Mackinac* and the *City of Cleveland* formed the "Lake Huron" or "Mackinac" Division. Of the four vessels, all but one were new, since the *Northwest* was the only steamer that had not been built to the order of the company. On November 11, 1884, a little more than a year since the *City of Mackinac* had slid down the ways, Carter recommended the *Northwest* be replaced by a new steamer which would be ready for operation in the spring of 1886. Using the engines of the *Northwest*, the Detroit Dry Dock Company built a steel side-wheel steamer with feathering blades for a cost of \$213,754.65.<sup>19</sup>

The latest addition to the fleet was called the *City of Cleveland*, while the older vessel of that name was rechristened the *City of Alpena*. It was with considerable ceremony that the *City of Cleveland* began her career. Mayor Gardner and the City Council of Cleveland came to Detroit to present the colors to the steamer named for their city and to return by the maiden voyage. In the speech that followed the ritual

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16. *Detroit News*, April 28, 1880.

17. Directors' Meeting, Nov. 16, 1882, *Record of the Board of Directors' Meetings* (1868-1897), p. 138. *D & C Papers*.

18. The *City of Cleveland* began the Mackinac route in 1882, although prior to this time she had operated on Lake Huron in connection with the Lake Superior Transit Company.

19. Mansfield, *op. cit.*, I, 463, and Carlisle, *op. cit.*, p. 395, state the cost as \$300,000. The figure \$213,754.65 is from the loose leaf notebook entitled *General Manager, Detroit & Cleveland Navigation Company. D & C Papers*.

of presenting the colors, the mayor spoke of the part that the D & C played in the relationships between the two cities. Not only were there commercial ties, but personal links as well, for, recalled the mayor, he and Mrs. Gardner began their wedding trip aboard the *Forest City* in 1852. Among the pleasant memories of the voyage was the courtesy of the clerk, David Carter. In appreciation for that trip of thirty years ago, Mayor Gardner handed to Carter an initialed doily fashioned by Mrs. Gardner. After the vessel had her colors and Carter his doily, the steamer got underway for Cleveland. The roar of whistles, the salutes of cannon, and the ringing of bells greeted her. To the music of a brass band the civic and company officials paraded through the streets.<sup>20</sup> It was a splendid affair, and one thoroughly enjoyed by all.

*(To be continued)*

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20. *Detroit Free Press*, May 26, 27, 1886.

### *Defiance*

Roll, roar, and romp  
Upon the sands, O Huron!  
Dash upon the willow-tree;  
Fling yourself upon the rocks;  
Charge against the pier-piles,  
Spuming forth your crystal breath  
In iridescent spray;  
Run madly upon the sandy, log-strewn shore,  
And fall back upon yourself in futile anger.  
But let your fury all run out  
Before you reach the puny, man-made boats;  
Let not your monstrous lashings  
Loose upon these hapless things;  
Let not your anger marry  
With the winds and spawn Destruction!

ALDA CARROW

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## The Great Lakes in Niles' National Register

CONTINUING *publication of excerpts about the Great Lakes taken from America's leading news magazine during the years 1811 to 1849.*

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### Geographical Information—1816

(Continued from INLAND SEAS, Summer, 1952)

THIS COUNTRY, I believe, is as well supplied with springs as most parts of the state. There is a large and fine one at the upper end of the town, on the Sandusky; and several others within the Reserve. There are also good springs within the reserve at the rapids of the Maumee. There is a remarkable one at upper Sandusky, which rises within the fort, from under a large oak tree, at the summit of a high bluff, on which the fort stands.

All the several kinds of grain, such as Indian corn, wheat, rye, oats, barley, &c. which are cultivated in the western country, may, I believe, be raised in as great perfection on the waters of the lakes in this state. I have seen as good corn grow at the rapids of Maumee as in any part of this state; and as good wheat on the river Raisin, 40 miles further north. The cultivated grasses will also thrive well, for which many parts of the country seem peculiarly adapted. Such tracts of the country as lie low, and are partially covered with water some part of the winter and spring, might, in most cases, be easily drained, which would render them as fertile as they are now rich. The soil is a black, loose, friable loam. Of this description is the black swamp; which probably derived its name from the blackness of the soil. I am persuaded that the land, in general, of the lake side of this state, is not inferior in point of fertility to the Ohio (river) side.

The climate, on the borders of the lake, is colder than on the Ohio, in proportion to the difference between their respective latitudes. But the weather is not so changeable — for when the winter sets in on the lakes,



with frost and snows, it generally continues with little or no thaw until spring. The rivers and lakes become frozen up, and the inhabitants frequently cross the lakes on the ice, in their carioles, with great expedition. This difference, between the climate of the lakes and that of the Ohio, beyond what arises from the difference of latitude, is, in my opinion, owing to the prevalence of a northerly wind on the former; which, meeting no obstruction on an extensive sheet of water, communicates continually to the southern coast of the lake the temperature of a much higher latitude. — The winds, I believe, which are found to be most prevalent in every country, are those which set in from the outlets of the rivers towards the higher part of the country. To apply this principle to the difference of climate above mentioned, it may only be necessary to observe, that from the sources of the rivers and streams which fall into the Ohio and the lakes, there must be more or less descent towards each. In the latter case, the rivers of this state which fall into the lake, run a northerly course; the prevailing wind, therefore, would be from that point, and would bring with it, as before observed, the temperature of a more northern latitude. In the other case, the general course of the Ohio is westerly and southerly; the prevailing winds, therefore, are from those points, and bring with them the milder temperature of the Mississippi. The climate of that part of Ohio bordering on the lake, is somewhat colder, perhaps, than that of the Potomac; while this part of the state is much warmer, though something more northerly. On the foregoing principle also, the meeting of two counter currents of wind may, with propriety, be assigned as the cause of the frequent and sudden changes of weather, which the southern part of this state is subject to. The limits of my letter, and the necessary attention to your other enquiries, will not permit me to add more on this subject.

The public land in the reserves, on the Sandusky and Maumee rivers, together with the towns directed to be laid out, have just been surveyed. But it is not probable that the sales will take place before May or June next. Public notice of the time will be given in the Washington City and other papers. These lands are attached to the Canton district, and will be sold at Wooster, within the district, and at which place the land offices are kept.

Agreeably to the treaty of Brownstown, and in conformity with the acts of congress authorising the same, a road has been laid out and surveyed, under the direction of the surveyor-general of the United States, from the foot of the rapids of the Maumee, to the Western line of the Connecticut reservation. This road commences near the new town at the former place, and passes through the principal avenue, and pursues the most eligible ground for a road and settlement, crossing the Sandusky about a mile below the new town laid off on that river, and intersects the western line of the Connecticut reserve, about 23 miles north of the south-west corner thereof. The whole length of the road is about 48 miles. By the treaty of Brownstown, likewise, all the land, within one mile on each side of the road, was ceded to the United States. This tract of two miles wide will be surveyed into sections and prepared for sale, it is expected, immediately after the location of the road shall have been approved by the President of the United States. In case the location of the road shall be approved, it is very probable that the reserves on the Maumee and Sandusky, together with the lots in the new towns, and the tract of one mile wide on each side of the road, will be offered for sale together, some time next summer. The intercourse between this state and the Michigan territory, will render this road a very public and important one, and the land on each side valuable.



# GREAT LAKES CALENDAR

*Compiled from Marine News in Cleveland Newspapers*

By JANET COE SANBORN

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## AUGUST, 1952

The Canadian freighter *Novadoc*, which was grounded in the Armistice Day storm of 1940, near Pentwater, Michigan, has been missing in high water for several years. She was recently "found" again under 21 feet of water by the U. S. Coast Guard. The location has now been marked by a spar buoy.

## AUGUST, 1952

*Elton Hoyt II*, new flagship of the Interlake fleet, passed her sea tests in Lake Michigan and sailed from Chicago to pick up her first iron ore cargo at Superior, Wisconsin. Pittsburgh Steamship's new freighter, the *Arthur M. Anderson*, discharged her first cargo of 20,087 gross tons at Gary, Indiana.

## AUGUST, 1952

The 666-foot *John G. Munson*, largest ship ever built in Wisconsin, and largest self-unloading limestone carrier on the Lakes, left Manitowoc, Wisconsin, for Calcite, Michigan, to load her first stone cargo for the lower lakes. This newest addition to the Bradley fleet, eased her 72-foot beam through a 73-foot bridge opening on her way from the shipbuilding dock to Manitowoc's ferry turning basin, without even scraping her paint.

## AUGUST, 1952

Donald A. Bever, of the Vermilion Boat Club, is the new Great Lakes champion in the International Star Class Yacht Racing Association's championship series held at Vermilion, Ohio. Paul Stack of Lorain sailed with Bever as crew. Although he piloted *Luscious Too* into ninth place in the final race of the series, Bever's score in the first four races kept him in the lead with a total of 85.

## AUGUST, 1952

The Port Weller drydocks on the Welland Ship Canal was the site for the christening of Canada's newest steamship, the *John O. McKellar*, of Colonial Steamships, Ltd. She is 678 feet long, 24 feet longer than the *Scott Misener*, whom she will replace, and carries the honors for Colonial of being the longest ship in the Canadian fleet. The vessel was named by Mrs. John O. McKellar for her late husband, who with Captain Scott Misener built up the Colonial fleet from a 1,200-ton wooden hull freighter, the *Langell*, to its present capacity of 26 vessels. It is estimated that the *McKellar* will be able to carry 750,000 bushels of wheat, about 75,000 more than the *Misener*. She will enter the Great Lakes grain trade at once.



#### SEPTEMBER, 1952

Latest addition to Great Lakes carferries is the S. S. *Badger*, launched at Sturgeon Bay, Wisconsin, from the Christy Corporation shipyard, for the Chesapeake and Ohio Railway. Christened by Mrs. Walter J. Kohler, Jr., wife of Wisconsin's governor, the huge wave which gushed out of the launching slip when the 410-foot *Badger* hit the water, bowled over a long string of freight cars anchored to the ground with cables and protected by a shield of steel plates, and also caved in the side of a 300-foot ship building!

As the *Badger* settled to an even keel, her sister ship, the S. S. *Spartan* was christened in a joint ceremony by Mrs. John A. Hannah, wife of the President of Michigan State College. The *Spartan* was launched last January without christening. These new ships, costing over \$10,000,000, are equipped with 4,000-horsepower engines, and will be able to travel 18 miles an hour loaded. They can transport 150 automobiles or 32 freight cars, and are designed for year around service, even ice-breaking. Each ship has 60 air-conditioned state-rooms, a lounge and promenade deck and a dining room seating 52 persons. Named for the athletic teams of the two schools, the Badgers of the University of Wisconsin and the Spartans of Michigan State, delegations from both colleges hailed the beribboned champagne bottle-swinging technique of the sponsors with traditional school cheers!

#### SEPTEMBER, 1952

The last chapter in the career of the First Lady of the Great Lakes was written in Benton Harbor, Michigan, on the ninth. All equipment and furnishings of the *City of Grand Rapids* were sold at auction, and she began her final voyage in tow for Hamilton, Ontario, where she will be scrapped. Built at Cleveland, Ohio, in 1912 at the then enormous price of \$400,000, she was owned by the Graham and Morton line and was one of the biggest and the most luxurious of the passenger vessels on the Lakes. She was later a flagship in the Goodrich fleet and ended her days with the Cleveland and Buffalo line which purchased her in 1948. (The company went into voluntary bankruptcy in 1951.) The Hyman-Michaels Corporation of Chicago bought her for \$56,250 and recently completed transactions with the Canadian salvage company.

#### SEPTEMBER, 1952

In one of the first of the September fogs which hamper Great Lakes' shipping, two freighters and a lighthouse suffered damages. The *E. J. Kulas*, downbound with ore for Ashtabula, crashed into the 42-foot high lighthouse in Livingstone Channel in the Detroit River. The 580-foot *Kulas* blocked the river channel for over four hours and all up and down traffic was halted until she was freed by the U. S. Coast Guard cutter *Acacia* and two tugs. During the confusion of what is believed to be the first head-on collision of a freighter and a lighthouse, the *George R. Fink*, 532-foot carrier, ran aground loaded with ore for Buffalo, in upper Amherstburg channel between buoys 76 and 78. She was released by four tugs. The *Fink* was seriously disabled and the lighthouse was badly damaged. The U. S. Navy Hydrographic Office reports a 35-degree list and loss of her light and fog bell. A temporary buoy has been equipped with a fog trumpet, and red and white lights mark the lighthouse pier.

#### SEPTEMBER, 1952

The *Cason J. Calloway*, new 647-foot addition to the Pittsburgh Steamship Company's fleet, sailed from Detroit, Michigan, to load her first cargo of ore at Duluth, Minnesota. She has a capacity of 19,000 tons. Two record cargoes went through the

Welland Canal on the 16th. The *John O. McKellar's* first cargo was 749,681 bushels of barley and 20,592 net tons of ore. The largest cargo of iron ore ever to pass through this waterway was carried by the *Sir James Dunn*, of Canada Steamship lines. The *McKellar's* cargo was also the largest cargo of grain of any description ever to go through the Canal.

#### SEPTEMBER, 1952

The *Charles L. Hutchinson*, built at the Defoe Shipbuilding Company in Bay City, Michigan, is the fourth Great Lakes vessel to bear this name. The 644-foot carrier was christened at Cleveland, Ohio, by Mrs. Jane Cauffield of West Ridgefield, Ohio, daughter of J. T. Hutchinson, senior partner of Hutchinson and Company. Hutchinson will operate the ship for Pioneer Steamship Company where she will take her place as 17th in their fleet. She will be the 35th in Hutchinson's combined three fleets, which is the third largest fleet on the Lakes. As flagship, the *Charles L. Hutchinson* replaces her 600-foot predecessor, rechristened the *Gene C. Hutchinson* a year ago in honor of one of the three partners of the Hutchinson firm, and son of the founder.

#### OCTOBER, 1952

The Lorain, Chicago, Toledo and Buffalo yards of the American Ship Building Company, out on strike since September 15th over a wage dispute, resumed activities on the 9th.

The strike was terminated when company officials agreed to pay a 7% wage increase across the board which meant an increase of from 11 to 18 cents an hour. The strike involved about 1,400 workmen at Lorain, 200 each at Chicago and Toledo and 100 at Buffalo.

#### OCTOBER, 1952

A seafarers' union in Toronto, Canada, has asked for a ban on foreign vessels operating in Canadian inland waterways and has urged a heavy tax be put on them. The unionists claim the small foreign boats can cut rates because of low wages paid their sailors, and cheaper operating costs. There has been a growing resentment against these foreign ships, especially in Canada, as they are invading the Lakes in ever increasing numbers. They can operate in the European and African coastal trade as soon as the annual freeze sets in on the Lakes and are constructed ruggedly enough to withstand severe North Atlantic gales. Small enough to pass through the St. Lawrence River Canal's 260-foot locks with 14-foot depth, they can carry a pay load of 3,000 tons between the Great Lakes and Europe. The first four of these ships appeared in 1935 under the Norwegian Fjell Line flag. There are now more than two score of them in operation. The French Fabre Line had six ships this season in the Mediterranean-Great Lakes trade, the Hamburg-Chicago Line sailed seven and British ships appeared for the first time on regularly scheduled trips. The India-American Line plans to link Bombay, Madras and Calcutta with Great Lakes ports soon. So far this year tonnage carried through Toronto harbor has reached 4,600,000 tons, making it Canada's third port, following Montreal and Vancouver. 270 vessels have entered or cleared Toronto, coming from Egypt, Italy, France, Spain, Morocco, Holland, Denmark, Norway, Sweden, Finland, England, Belgium, Germany and Portugal. Ships that can get as far as Toronto, can come on through the Welland Canal to other lake ports.

#### OCTOBER, 1952

1952 will go down in history as a banner year for the building of cargo vessels for the Great Lakes, with 13 new ships already in service and six more which should be finished by the end of the season. Yet to be launched are Columbia's 647-foot *Armco and Reserve*, the 690-foot *E. T. Weir* for Hanna Company, the 647-foot *William C. Ford* for the Ford Motor Company, Great Lakes Steamship Company's *Richard M. Marshall*, a 627-foot self-unloader for the American Steamship Company and a 574-foot Canadian freighter for the Algoma Central Lines. In Canada a keel was laid recently for the largest oil tanker ever to be built on the Lakes, and American Steamship has placed an order with the Manitowoc Shipbuilding Company for a self-unloader to cost \$7,000,000.

#### OCTOBER, 1952

Although losing things is usually considered a human failing, even giants of the Lakes sometimes do! A freighter reported losing an anchor and 60 fathoms of chain in the main channel of the Detroit River above Fighting Island near Peach Island's lighted buoy number 4. The U. S. Navy Hydrographic Office warned mariners to proceed here with caution.

#### OCTOBER, 1952

After many busy years of ferry service the familiar *Wayne* has been towed to Sturgeon Bay, Wisconsin, where she will settle down to a well earned rest as a yacht club. Operating originally in the Detroit-Windsor area, she was later transferred to Duluth, Minnesota, where she became an excursion and sight-seeing ship. Prior to her sale last summer she was engaged in the Detroit-Toledo-Sandusky excursion industry.

#### OCTOBER, 1952

Toronto port officials are going forward with plans for the increase in foreign shipping which will dock there when the passage to the ocean is enlarged, in preparation for the St. Lawrence Seaway traffic (if and when!). The Toronto Commission has contacted 60 major seaports for data on handling ocean shipping. They plan to accommodate 12 large ocean vessels at one time and to handle 30 to 40 smaller ships. While 85% of the world's ocean vessels do not exceed a 25-foot draft, provision will be made for vessels of 30 feet.

#### OCTOBER, 1952

The M. A. Hanna Company of Cleveland, Ohio, became the operators of the largest vessel on the Great Lakes when the *Joseph H. Thompson* was christened at the Chicago yards of the American Shipbuilding Company on the 27th. Mrs. Philip Neuhaus of Houston, Texas, daughter of the company's president, named the 714-foot freighter for her father, in a traditional christening ceremony. The ship will be operated for the Hansand Steamship Corporation and after her sea trials the *Thompson* will go to Escanaba for her first ore cargo.

#### OCTOBER, 1952

Another search for sunken treasure is being planned for next season on the Great Lakes. A small freighter, the *Chapparral*, built in 1928 and called the *Halcyon*, is now being equipped in Detroit, Michigan, for a sojourn to explore the lakes' depths. Peter McLean, who will head the expedition, will rename the ship, the *Treasure*, and says his invention, the "waterscope" will seek everything from gold bullion to locomotives! The treasure hunt will extend throughout all the lakes, McLean reported.



## NOTES

### George M. Humphrey

THE GREAT LAKES HISTORICAL Society takes pleasure in the recognition given to a distinguished supporter of long standing. The new Secretary of the Treasury, George M. Humphrey, chairman of the board of Cleveland's M. A. Hanna Company and a nationally known coal and iron man, had his company take out a sustaining membership in the Society at its very start. This has continued to this day.

The Hanna Company, founded by Senator Marcus A. Hanna, an eminent national

figure in the McKinley days, has expanded greatly in the 23 years in which Secretary Humphrey has been either president or chairman of the board. Only this year it built the two largest freighters on the lakes, the 714-foot *Joseph H. Thompson*, constructed at Baltimore, and now the 690-foot *E. T. Weir*, the largest vessel ever built in a Great Lakes yard.

All members of the Society will wish Secretary Humphrey success in his new undertaking.

### The Dinham Memorial Collection

MR. HARRY A. DINHAM, formerly of Duluth, now of Mobile, Alabama, and member of the Great Lakes Historical Society, has given to the Society a fine group of pictures as a memorial collection in memory of his parents, Harry H. and Ottley B. Dinham. The group includes forty-five large photographs, thirty-five of which are framed. Important vessels and ship launchings of the Wolvin and Canadian Steamship Lines are represented, as well as grain elevators and harbor scenes.

Harry H. Dinham, father of the donor, was secretary to A. B. Wolvin, President of the Wolvin Steamship Line, from 1902-1910. He was an officer and manager of the Duluth Shipping Company, which included Canada Steamship, Pioneer and

other lines, from 1910 until his death in 1942. During the First World War Mr. Dinham supervised the construction and operation of the United States Shipping Board Fleet at the head of the Lakes.

Mrs. Dinham carried on as agent after Mr. Dinham's death, for Canada Steamship and the foreign lines coming into Duluth, with the distinction of being the only woman vessel agent and broker on the Great Lakes. Her death occurred on May 4, 1952.

The Society is grateful to Mr. Dinham for this impressive addition to its photographic collection. Many picture-minded members of G. L. H. S. have already enjoyed examining it.

—J. C. S.

## Loss of the North Star

**A** LITTLE PAST the hour of 10 o'clock last evening, the steamer *North Star* was found to be on fire in her forward hold. She was moored at the dock, near the coal yard of Rhodes, Card & Co. The fire had gained such headway when discovered by the Watchman, that it was with difficulty that he managed to escape from the boat — being obliged to get out upon the ice; which fact shows with what rapidity the flames spread. At half past eleven the fire was in the main hold — everything above having been destroyed by the element that could be burnt. —

The origin of the fire is a mystery, although no doubt is entertained of the fact that it was entirely the result of an accident. It is conjectured by some that a few workmen who had been employed aboard of her, may have caused the fire by sparks from their pipes. None of the shipping anchored near was damaged to any amount, as the wind was fortunately very light at the time. The masts and sides of one or two schooners were slightly scorched by the heat, that was all. The engines of the Fire Department did not arrive until it was too late to be of much service, although they were handled very effectively after they had arrived upon the ground.

This steamer had become a great favorite with the city — having at various

times contributed much to its pleasure in the shape of delightful Lake Superior trips. She was built in 1854 by Messrs. S. W. & A. Turner, at a cost of \$125,000. She was originally intended for the Lake Superior trade, and has from the first been engaged in such trade. She was owned by the Cliff Mining Company, and was insured for a considerable amount — probably for \$25,000 — but in what Company we could not learn. The probabilities are that the boat to take her place will not be a side wheel steamer.

The *North Star* was burned nearly to the water's edge — nothing being left unburnt and destroyed except some of the iron work, the boilers and wheelhouses. She is reduced to the merest shell. The boilers are not considered damaged very much, and can undoubtedly be used again. Two small boats belonging to the steamers were saved. Two families were living on the boat at the time of the fire. She has been commanded by Captain B. G. Sweet, from the time of her first appearance on the Lake; and the black and shapeless mass to which the fierce fire has reduced the noble boat, must have called up many a sad thought in his mind.

—From the *Cleveland Plain Dealer*, Friday evening, February 21, 1862.

## A Map of "Novelle France"

**M**R. DONALD G. BOUMA, cartographer of Goshen, Indiana has presented G. L. H. S. with a copy of a map of New France of Canada which he has recently published. This map was drawn on a modern map which shows the correct outlines as French 18th century cartographers would have liked to, but did not, know them. All names are in French from early maps, giving preference to those in common usage, and accurately placed by careful research. Forts and missions are included. The scale indicates the distances

used by the three rival powers of that day, France, Spain, and England. The map is in delicate pastels and decorated, thus simulating the ancient maps. It is therefore as decorative as it is useful and should be a welcome addition to any map collection. It may be obtained from Mr. Bouma at R. F. D. 5, Goshen, Indiana for \$1.00. He was formerly on the cartographic staff of the National Geographic and is now with a map publishing company.

—D. L. R.

# Historic Hope Island

By W. R. WILLIAMS

N EAREST of the three Christian Islands to the Midland, Ontario vessel course, historic Hope Island in Georgian Bay alone retains the name with which it was christened by the Jesuit Fathers in 1649, when they shepherded 6,000 surviving Huron Indians to precarious safety and scanty winter fare around quickly erected Fort Ste. Marie II on nearby Charity Island (now Christian Island).

Three centuries have passed, yet Hope Island remains primeval, except for its lighthouse. In 1856 the Department of Indian Affairs set aside Christian, Hope and Beckwith Islands as an Indian reservation. The Ojibway Indian population never spread beyond Christian Island. No dwelling was ever erected on Hope Island nor has even one Indian from Christian Island trudged across the intervening miles of winter ice to cut firewood since the year 1925.

Few tourists or local residents have ever set foot on Hope Island. If they did they would be rewarded with wild strawberries in June and wild grapes in Autumn. The lighthouse tender brings the keepers early in April and transports them back to Midland in mid-December.

Like St. John's heaven, Hope Island "lieth four square," east to west one and three quarters miles, north to south one mile and a quarter. Its area is two thousand acres. Projecting northwest is Hard Head Point, southwest is Hoar Point, southeast is Shoal Point and northeast is the "lighthouse corner."

The lighthouse had its diamond Jubilee in 1944, having been lit by Charles Lizard, first keeper, on October 27, 1884. Outward from it extends dangerous Lottie Wolf Shoal for one mile, recalling the schooner *Lottie Wolf* that, in 1897, sank only seventy-five yards from the lighthouse. One may still see well-preserved timbers on the rocky bottom by looking

over the shaded side of a launch or row-boat on a calm day.

About the turn of the century, steel steamers began to supersede the schooners. The Department of Transport sensed what was coming and lit the Brebeuf range lights in 1900.

Fog was a more serious drawback for steamers than sailing vessels and Lottie Wolf Shoal carried the threat of grounding to any approaching steamer, the only alternative being to drop anchor, and regret the loss of time and money. Accordingly, in 1908 the Department of Transport installed a fog-horn, or diaphone, in a small building beside the lighthouse. Its twice-a-minute roar is distinctly heard at a distance of fifteen miles.

In spite of the fog-horn, staunch well manned steamers met difficulty, as witness the wheat laden *Maple Dawn* which grounded on Christian Island during a snowstorm on the night of November 18, 1920. Witness further the grounding of the wheat laden *Riverton* on Hard Head Point, Hope Island, during a snowstorm on November 14, 1943.

In August 1944, the Department of Transport erected a radio beacon at the Hope Island lighthouse. Its 120 ft. vertical antenna is plainly visible from the steamer course one mile offshore. The beacon's transmitter broadcasts its characteristic signal in clear weather twice every hour, but during fog, rain or snow it can be heard in earphones once every three minutes. Any vessel within one hundred miles, that is equipped with radio compass can easily determine, within one degree of accuracy, its direction from Hope Island lighthouse.

The importance of radio beacons has been recognized by steamship companies and today every cargo vessel, most tugs and numerous pleasure yachts on the Great Lakes are equipped with direction finding apparatus.



## Navigation on the River—A Steamer Nearly Sunk\*

THE HEAVY FROST which has prevailed in this vicinity for several days and nights past, has, with the exception of the railway ferries, closed the river to Navigation. None of the regular ferries were running on Sunday, and as a consequence the cold weather of Sunday night completely blocked up the avenues previously kept open across the river. This morning, about 9 o'clock, the railway ferry steamer *Transit* attempted to cross, but when near the centre of the river, opposite the Detroit and Milwaukee depot, the ice penetrated her hull, cutting a large hole in the vicinity of her bow. The water rushed in at a tremendous rate, and all attempts to stop the leak proved unavailing. Signals of distress were made, and the *Union*, which was lying at the Great Western wharf, and the *Windsor*, at the Detroit and Milwaukee depot (Sic) went out to her assistance. By the timely aid of these steamers the *Transit* was rescued and towed to a place of safety on the Canadian shore. The ice is of immense thickness, and as the planking of the *Transit* must be considerably dilapidated, it is not to be wondered at that a hole was made in her bottom.

—*Detroit Tribune*, Jan. 16, 1865.

Detroit, Michigan  
January 18th, 1865

C. Paine, Esq.  
Chf. Engr., Toledo

Dear Sir: I beg to call your attention to the annexed article cut from "Detroit

Tribune," relative to accident to G. W. R. ferry *Transit*. When the leak in the *Transit* was discovered, she was crossing the river from our Stock Yards, where she had been loading stock. The Tribune is wrong in saying the hole in her hull was caused by ice. Mr. Peacock says the hole is not near her bow, but in her bottom, near her stern—and that it was caused by her coming in contact with one or more of the old planks of coffer dam at lower end of dock. The water in the river is now very low and the planks which were cut off a short time ago—are now about one foot above water. If they were to be sawed off again they would probably be quite as dangerous as they now are. Mr. Peacock of G. W. R. proposes that we have the plank pulled out, and urges strongly that it be done soon as possible, as he considers it unsafe for their boats to go to the dock until it is done.

Please say if you will attend to this and oblige.

Yours truly,  
R. H. HILL, (Agent)

Mr. Lavender, the party Mr. Townsend engaged to drive piles at dock, informed me that the plank are of *no use*, and should have been removed by the city when the sewer was completed.

—R. H. H.

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\* The foregoing is from an original document written in longhand on the letterhead of the Office of the Michigan Southern and Northern Indiana Railroad Company. It was presented to the G. L. H. S. by Mr. E. H. Rankin who says the author of the letter, R. H. Hill, was Auditor of the Lake Shore and Michigan Southern Railroad at his retirement.

—The Editor.

## The Steamer Western States

C. F. BLANCHARD, who was an engineer on the Cedar Point Steamer *G. A. Boeckling* during the 1951 season, furnishes the data for the following tale. Blanchard followed the lakes for many years, usually in the department of engines and boilers, and in 1920, or thereabouts, was an oiler on the steamer *Western States*. The ship at that time was on the Detroit-Buffalo run.

The wind had been in the northwest, gale force, some 24 hours, and a sizeable sea had kicked up even before the ship left Detroit on her Buffalo voyage. The wind seemingly increased in force as the ship proceeded and in the vicinity of the deep water around Long Point, which is some 25 miles from Buffalo, the engine crew noticed a racing of the engines, as large waves at bow and stern of the ship caused the water to fall away from the paddles, and the wheels, lacking the resistance of the water and meeting only air, would momentarily spin, necessitating a throttling of the engine.

It is a common occurrence when propeller wheels are spinning, as when the screw wheel ship takes a dive over the top of a big wave with her bow going down and stern coming up, exposing the propellers, for engineers to close the throttle momentarily — otherwise the ship's engines could be shaken to pieces. A massive engine is not intended for high-speed motion, as large bodies move slowly.

The wind showed no sign of abating and as the ship neared the entrance to Buffalo breakwater harbor mouth, the cap-

tain suddenly lost his nerve. The moment had come for a decision, either to run into the harbor or to turn about and run back. The ship, yawing wildly from port to starboard, unmanageable, as most ships are under conditions of a big sea and following gale, swung three points to either side of her course — three points to port, three points to starboard.

The harbor entrance is 300 feet wide but the vicious turmoil encircling his ship caused the skipper to turn about at the last moment lest she might not steer as he expected. Side wheelers have what is known as a slow rudder and a collision with the colossal concrete wall of the Buffalo breakwater meant loss of ship and probably everybody on board.

He issued an order of "Hard-a-Port" to the steersman and the ship's bow rapidly fell away from the breakwater, into a rounding-up maneuver. As she presented a broadside to the enormous waves, a gigantic one boarded her with a force and volume that ripped out six staterooms and set her entire promenade deck awash. However, she completed her round-up and with the bow facing the gale she rode easier. She ran back and anchored in the lee of Long Point.

As her skipper was subsequently fired, the owners evidently figured the ship could have made the entrance through the breakwater, thereby avoiding the damage to its staterooms.

—W. O. STUBIG in *The Sandusky-Register-Star News*, June 16, 1952.

## W. H. Gerhauser

WILLIAM H. GERHAUSER, president of the American Shipbuilding Company and a member of the Great Lakes Historical Society since its early days, died at his Cleveland Heights home on November 23rd. His company was famous for the number of lake vessels it had constructed, the latest being the 690-

foot *E. T. Weir*, the largest vessel ever built on the Great Lakes and second only to the Baltimore-built *Joseph H. Thompson*, which measures 714 feet, the largest lake boat of them all.

Mr. Gerhauser was a modest, genial man of great capabilities with a multitude of friends. He will be greatly missed.

# A Partial List of Hull Numbers of Ships Built by the Component Shipyards Making Up the American Shipbuilding Co., Cleveland, Ohio

Compiled by GEORGE C. MASON

## PART II

### DETROIT SHIPBUILDING CO., 1867-1919.

1. Emma L. Coyne — sch. — W
2. Sweetheart — sch. — W
- 3.
4. Cambridge — sch. — W
5. Champion — tug — W
6. Vulcan — tug — W
7. Pathfinder — sch. — W
8. Hammond — sch. — W
- 9.
10. Joseph L. Hurd — str. — W
11. Reindeer — sch. — W
12. Monticello — sch. — W
13. S. C. Baldwin — str.? — W
14. Hope — ferry str. — W
15. Nellie Briscoe — sch.? — W
16. Monitor — sch. — W
- 17.
- 18.
19. Gordon Campbell — str. — W
20. R. N. Rice — str. — W
- 21.
22. W. F. Merrick — tug — W
23. Inter Ocean — str. — W
24. Victoria — ferry str. — W
25. Argonaut — str. — W
26. Wells Burt — str. — W
27. Michigan — sch. — W
28. John Owen — tug — W
29. Fortune — ferry str. — W
30. Excelsior — ferry str. — W
31. City of the Straits — pass. str. — I
32. State of Ohio — pass. str. — I
33. Idlewild — side wh. str. — I
34. Transport — ferry str. — W
35. Garland — ferry str. — W
- 36.
37. Iron Age — str. — W
38. John C. Pringle — str. — W
39. Lehigh — str. — I
40. Boston — str. — I
41. Samoa — str. — W
42. Robert L. Fryer — str. — W
43. S. F. Hodge — str. — W
44. City of Milwaukee — pass. str. — I
45. Clarion — str. — I
46. Iron Duke — str. — W
47. Iron Cliff — sch. — W
48. Michigan — str. — I
49. Wisconsin — str. — I
50. Brunswick — str. — W?
51. Iron Chief — str. — W
52. Nellie Torrent — str. — W
53. Algolah — ferry str. — W
54. Massachusetts — str. — W
55. Merrimac — str. — W
- 56.
- 57.
- 58.
59. F. & P. M. No. 1 — pass. str. — W
60. F. & P. M. No. 2 — pass. str. — W
61. State of New York — pass. str. — I
62. Walter L. Frost — str. — W
63. Sappho — ferry str. — W
64. E. N. Roberts — tug — W
65. Michigan Central — car ferry — I
66. Lansdowne — car ferry — I
67. W. A. Haskell — str. — W
68. W. J. Averell — str. — W
69. Albany — str. — S
70. Syracuse — str. — S
71. City of Cleveland — pass. str. — S
- 72.
73. Mascotte — str. — I
74. Manhattan — str. — W
75. Lewiston [Susan E. Peck] — str. — S
76. John F. Eddy — str. — W
77. F. & P. M. No. 3 — pass. str. — W
78. Fayette Brown — str. — S
79. E. M. Pack — str. — C
80. Iron King — str. — W
81. R. P. Fitzgerald — str. — W
82. Hudson — str. — I



83. Iron Queen — sch. — W
84. Harlem — str. — I
85. St. Ignace — car ferry — W
86. Chas. Stewart Parnell — str. — W
87. J. Emory Owen — str. — W
88. City of Detroit — pass. str. — S
89. F. & P. M. No. 4 — pass. str. — W
90. Thomas W. Palmer — str. — C
91. Manchester — str. — C
92. Livingstone — str. — C
93. Philip D. Armour — str. — W
94. Charles A. Eddy — str. — W
95. John Owen — str. — W
96. A. G. Lindsay — str. — W
97. Governor Smith — str. — W
- 98.
- 99.
100. S. R. Kirby — str. — S
101. Frank E. Kirby — str. — S
102. F. H. Prince — str. — W
103. Maryland — str. — S
104. Henry R. James — str. — W
105. Marigold — lt. hse. tender — S
106. E. C. Pope — str. — S
107. Pioneer — str. — S
108. Promise — ferry str. — S
109. Wyandotte — str. — S
110. Mahoning — str. — S
111. Chicora — str. — S?
112. Sainte Marie — car ferry — W
113. Selwyn Eddy — str. — S
114. City of Alpena — pass. str. — S
115. Mohawk — str. — S
116. City of Mackinac — pass. str. — I
117. C. A. Lorman — tug — W
118. Harvey H. Brown — str. — S
119. Arrow — pass. str. — S
120. Argo — str. — S
121. City of Buffalo — pass. str. — S
122. Senator — str. — S
123. Aragon — str. — S?
124. Sir William Fairbairn — str. — S
125. Robert Fulton — str. — S
126. City of Erie — pass. str. — S
127. America — str. — S
128. Troy — str. — S
129. Pennsylvania [Owana] — pass. str. — S
- 130.
131. Tashmoo — pass. str. — S
132. Angeline — str. — S
133. Admiral — str. — S
134. Harvard — str. — S
135. Simon J. Murphy — str. — S
136. Howard L. Shaw — str. — S
137. James Battle — fire tug — S
138. David M. Whitney — str. — S
139. Mars — str. — S
140. Uranus — str. — S
141. Hugoma — str. — S
142. Colonel — str. — S
143. Yosemite — str. — S
144. Eastern States — pass. str. — S
145. Western States — pass. str. — S
146. Greyhound — pass. str. — S
147. William F. Fitch — str. — S
148. Columbia — ferry str. — S
149. Mincie — str. — S
150. Tionesta — pass. str. — S
151. S. N. Parent — str. — S
152. Albert M. Marshall — str. — S
153. A. D. Davidson — str. — S
154. James H. Reed — str. — S
155. Western Star — str. — S
156. Pere Marquette 14 — car ferry — S
157. Utica — str. — S
158. Amasa Stone — str. — S
159. Lyman C. Smith — str. — S
160. Powell Stackhouse — str. — S
161. W. H. Bixby — str. — S
162. E. D. Carter — str. — S
163. Harry Coulby — str. — S
164. Sir Thos. Shaughnessy — str. — S
165. Samuel Mather — str. — S
166. Britannia — pass. str. — S
167. W. E. Fitzgerald — str. — S
168. City of Cleveland — pass. str. — S
169. J. H. Bartow — str. — S
170. C. O. Jenmins — str. — S
171. Calumet — str. — S
172. Edwin N. Ohl — str. — S
173. Caldera — str. — S (Bay City)
174. Thomas J. Barlum — str. — S
175. Wainwright — str. — S
176. A. E. Nettleton — str. — S
177. Alpena — str. — S
178. Benjamin Noble — str. — S
179. Conemaugh — str. — S
180. Rochester — str. — S
181. Octarara — pass. str. — S

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|------|---------------------------------|------|------------------------|
| 182. | Arlington — str. — S            | 231. | Lake Ypsilanti         |
| 183. | Brandon — str. — S              | 232. | " Goodspeed            |
| 184. | E. H. Utley — str. — S          | 233. | " Goree                |
| 185. | Allegheny — str. — S            | 234. | " Gorin                |
| 186. | Put-in-Bay — str. — S           | 235. | " Gorman               |
| 187. | City of Detroit III — pass. — S | 236. | " Grandon              |
| 188. | Calcite — str. — S              | 237. | " Graphite             |
| 189. | Lucius W. Robinson — str. — S   | 238. | " Gratis               |
| 190. | Seeandbee — pass. str. — S      | 239. | " Grattan              |
| 191. | A. D. MacTier — str. — S        | 240. | " Gravella             |
| 192. | F. P. Jones — str. — S          | 241. | " Gravett              |
| 193. |                                 | 242. | " Gravity              |
| 194. |                                 | 243. | " Greenbrier           |
| 195. |                                 | 244. | " Gretna               |
| 196. |                                 | 245. | " Grogan               |
| 197. | Gaute — str. — S                | 246. | " Flovilla             |
| 198. | Vestland — str. — S             | 247. | " Flume                |
| 199. | Levisa — str. — S               | 248. | " Flushing             |
| 200. |                                 | 249. | " Flynus               |
| 201. | Ozama — str. — S                | 250. | " Folcroft             |
| 202. | Carib — str. — S                | 251. | Lake Folsom — str. — S |
| 203. |                                 | 252. | " Fonda                |
| 204. |                                 | 253. | " Fontana              |
| 205. |                                 | 254. | " Fontanet             |
| 206. | War Major — str. — S            | 255. | " Faresman             |
| 207. |                                 | 256. | " Gilboa               |
| 208. | War Labor — str. — S            | 257. | " Gilpen               |
| 209. |                                 | 258. | " Gilta                |
| 210. | Lake Placid — str. — S          | 259. | " Giltedge             |
| 211. |                                 | 260. | " Girth                |
| 212. | Lakewood — str. — S             | 261. | " Gitano               |
| 213. | Lake Forest — str. — S          | 262. | " Glasco               |
| 214. | " Duane                         | 263. | " Fablus               |
| 215. | " Conway                        | 264. | " Fabyan               |
| 216. | " Butler                        | 265. | " Fackler              |
| 217. | " Arthur                        | 266. | " Fagundus             |
| 218. | " Weston                        | 267. | " Fairfax              |
| 219. | " Stirling                      | 268. | " Fairlie              |
| 220. | " Felicity                      | 269. | " Inglenook            |
| 221. | " Ennis                         | 270. | " Fairport             |
| 222. | " Larga                         | 271. | " Fairton              |
| 223. | " Lasang                        | 272. | " Faliah               |
| 224. | " Daraga                        | 273. | " Falfa                |
| 225. | " Damita                        | 274. | " Falkner              |
| 226. | " Benbow                        | 275. | " Fallon               |
| 227. | " Gakona                        | 276. | " Falun                |
| 228. | " Ormoc                         | 277. | " Deerfield            |
| 229. | " Akkra                         | 278. | " Fandango             |
| 230. | " Licking                       | 279. | " Fandon               |

W = wood; S = steel; I = Iron; C = composite

# The Great Lakes in Print

*An index to magazine articles and notes on the Great Lakes which have appeared in current periodicals not exclusively devoted to the lakes.*

## DESCRIPTION AND TRAVEL

*Better Homes and Gardens*, September, 1952, pp. 64-5. North shore of Lake Superior, by J. M. Liston.

*Think*, September, 1952, pp. 17, 32. Emerald Isle of Lake Erie. (Put-in-Bay), by M. F. Renz, illus.

*Ships and the Sea*, December, 1952, pp. 48-51. A Dry-land Sailor Gets Salty, by Rod Van Every.

## FISH AND FISHERIES

New York State Conservation Department *Research Series No. 2*, 1951, 25 p. A Study of Smallmouth Bass, Lake Ontario-St. Lawrence River, by U. B. Stone, D. G. Pasko and R. M. Roecker.

U. S. Fish and Wildlife Service. *Fishery Bulletin No. 70*, 1952. Age, Growth and Production of Yellow Perch in Lake Erie, by Frank W. Jobes.

U. S. Fish and Wildlife Service. *Special Scientific Report No. 85*, October, 1952, 48 pages. 25 Years of Federal Fishery Research on the Great Lakes, by Ralph Hile.

## HISTORICAL ACCOUNTS

*Inside Michigan*, September, 1952, pp. 34-38. Saginaw, from Sawdust to Autos, by Frank Wells.

November, 1952, pp. 28-29. The Christmas Trees That Never Came to Port, by Roma Baker Daw.

*Michigan History*, September, 1952, pp. 225-240. Petoskey at the Turn of the Century, by Edith Judkins Knaul.

## MINING AND MINERALS

*Compressed Air Magazine*, November, 1952, pp. 300-303. Iron from Taconites, by J. C. Pierce, illus.

*Engineering Journal*, October, 1952, pp. 1053-1057. Iron Ore Development in Quebec and Labrador, by W. H. Durrell.

*Engineering News-Record*, October 23, 1952, pp. 34-6, 39. Taconite Brings the Modern Mining Town (Lakeside and Bab-bitt, Minnesota) illus.

*Military Engineer*, September-October, 1952, pp. 334-5. Taconite — a Substitute Iron Ore, by Ralph S. Knowlton.

*Skills' Mining Review*, October 11, 1952, pp. 1-2. Construction Begun on New Ore Loading Facilities for Labrador Iron Ore at Seven Islands, Quebec, illus.

October 18, 1952, pp. 1, 4, 12-13. Iron Ore Beneficiation Plant of the Cleveland Cliffs Iron Company, by W. R. VanSlyke.

October 25, 1952, pp. 1-2, 8. Current Status of Reserve Mining Company Taconite Operations.

November 1, 1952, p. 12. Coal and Oil Fuel Bunkering Plant of North Western Hanna Fuel Company, Lime Island, St. Mary's River, illus.

## ST. LAWRENCE WATERWAY

*Engineering News-Record*, September 11, 1952, pp. 21-22. Canada Starts Seaway Plan Despite U. S. Uncertainty.

*United Empire*, May-June, 1952, pp. 122-127. The St. Lawrence Deep Waterway, by C. P. Wright.

## SHIPS AND SHIPPING

*Business Week*, July 26, 1952, pp. 114-115. Idle Ore Ships at Lakes Docks Mean Idle Steamer, So U. S. W. Spurs Drive.

August 16, 1952, pp. 32-3. Ore Shippers Get Up Steam to Cut Losses Caused by Strike.

September 12, 1952, p. 36. Sister Ships Join Ferry Fleet, illus.

*Heat Engineering* (Foster-Wheeler Corporation) October, 1952, pp. 149-155. Great Lakes Ore Carriers', S. S. *Johnstown* Class, by R. M. Cashman and C. E. Ericson, illus.



*Marine Engineer and Naval Architect*, September, 1952, pp. 418-9. German Great Lakes Motorships (*Desdemona* and *Cleopatra*).

*Marine Engineering and Shipping Review*, October, 1952, pp. 50-63. Largest Lakes Self-Unloader, the *John G. Munson* Goes into Service, by A. J. Zuehkle and G. F. Rankin, illus., diags., etc.

November, 1952, pp. 38-50. Steamer *Edward B. Greene* Becomes the New Cleveland-Cliffs Flagship, illus., plans.

*Nautical Gazette*, September, 1952, p. 32. Canada gets New Canal Freighter (*The Frankcliffe Hale*) illus.

September, 1952, p. 50. Train Ferries for Great Lakes Service (*S. S. Badger* and *S. S. Spartan*).

*Tracks*, October, 1952. The First Five, by Fred W. Dutton.

*Saturday Night*, May 17, 1952, pp. 12, 30. Queens of the Lakes—Our Inland Freighters, by Arthur Lower, illus.

*Ships and the Sea*, October, 1952, pp. 50-51. Luther Blount, Backyard Ship-builder, by John W. Maynard.

November, 1952, pp. 18-19. Steam Barges of the Great Lakes, by Carl C. Hanks.

#### WATER EROSION

American Society of Civil Engineers, *Proceedings, Separate No. D-115*, November, 1952. Discussion of Lake Michigan Erosion Studies, by T. B. Casey and others.

*Cleveland Plain Dealer Pictorial Magazine*, September 14, 1952, pp. 20-24. Lake Erie's Troubled Shore, by Larry Hawkins, illus.

September 14, 1952, pp. 25-27. Ups and Downs of the Lake as Reported a Century Ago.

*Engineering News-Record*, November 6, 1952, pp. 47-8. Seawall Unit is Round, Firm and Full (Cleveland).

#### WATER POWER

*Midwest Engineer*, September, 1952, pp. 7-8, 15-18. Water Works Developments in the Chicago Area, by L. R. Howson.

*Roads and Engineering Construction*, October, 1952, pp. 103-106. Second Stage of Niagara River Development to Bring Cost to \$299,000,000, illus.

## Saturday, November 13, 1852. Value of a Harbour.

THE STORM in which the Propeller *Independence* went ashore a few days ago on Lake Superior, drove the three large steamers of the lake, the above named, the *Baltimore* and the *Manhattan*, out of their course a distance of 75 miles, or a running distance of 150 miles, each in order to find shelter from the storm, and all for the want of a harbour at the mouth of the Ontonagon, which would not cost over twenty thousand dollars. All three of these vessels were at that place, where an immense amount of supplies is landed and copper shipped, when the storm came on and carried them off, one of them ashore before she had landed a barrel of a full

freight, causing probably her loss and the suffering of many persons connected with it. For the want of this trifle for the improvement of the Ontonagon harbour, two of the largest steamers on the lake have been lost within about a year, causing a loss of property in vessels and cargoes of not less than \$100,000, to say nothing of the distress, the interruption of business, on which no estimate, in dollars and cents, can be made.

—*Lake Superior Journal*.  
Reprinted in the *Toronto Globe*. Submitted by Fred Landon.



## Book Reviews

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THE BRUCE BECKONS, by William Sherwood Fox. Toronto, University of Toronto Press, 1952. \$4.00.

We might borrow a sentence from the first paragraph of Dr. Fox's book wherein he describes the charms of the Bruce Peninsula as "witcheries that beckon to quest and adventure" and say that this phrase characterizes also the charm of his whole delightful book.

Knowing and loving this historic and beautiful area which juts out into Lake Huron for many long years, he has written a volume which gives every evidence of this acquaintance. Here is no formal dry history but a series of chapters, each a skillfully wrought essay telling a story or describing the Bruce in dramatic sentences.

Dr. Fox has collected fact and legend and woven them in a tapestry of tales and personal experience which makes for the best kind of reading. Open the book at any page and something will hold your interest making you read on—on—on. The divisions of the book cover shipwreck and folklore, natural wonders and resources, plant hunters and their quests, forest and woodsmen, sky pilot and settler. Whether you are questioning the accuracy of early maps of the Bruce or looking for exciting tales of shipwrecks or snakes your search will be rewarded here. Some of the chapters appeared as separate papers in other publications, including INLAND SEAS. (*The Bruce-Terra Incognita* by William Sherwood Fox, INLAND SEAS, Spring 1949, pp. 3-11.) Another article by Dr. Fox, *The Wreck of the Steamer Simcoe* also appeared in INLAND SEAS this year. (Spring, 1952, pp. 29-32.)

Dr. Fox is distinguished in the field of Canadian letters having held many professorships and received scholastic honors. He also was at one time Assistant Professor of Classics at Princeton. Since he retired, after 20 years presidency of the University of Western Ontario, he has devoted himself to writing, out of his great knowledge and experience.

—D. L. R.

SHIPWRECKS OF THE LAKES, by Dana Thomas Bowen, published by the author. Daytona Beach, Florida, 1952. \$5.00.

Dana Bowen, pioneer member and long time supporter of the Great Lakes Historical Society, now publishes his third book of Great Lakes stories. A companion to his popular *Lore of the Lakes* and *Memories of the Lakes*, it resembles them in treatment and make-up as well as in having great appeal to those who love the lakes.

This volume is a compilation of major Great Lakes Marine disasters reported in a series of thrilling stories which reflect the author's romantic interest in the ultimate

fate of ships. Since the magnitude of vessel disasters in the last hundred years is beyond the compass of a single volume, the events described in this work were artfully selected to portray the diversity of lake shipping hazards. Ship losses from fire, stranding, collision and foundering are told in a fast moving, gripping style with the author at his best. The narration of mysterious disappearances stimulates the imagination but leaves the reader somewhat depressed at the succession of tragedies. The author has minimized this effect with success by stressing the heroism of captains and crews. Any reader who has experienced the inland seas in an ugly fall mood will appreciate the fidelity of the author's power of description; and his diligent research in the acquisition of historical data is evident.

This selection of shipwrecks begins with the burning of the *Erie* in 1841 and chronologically proceeds through 38 chapters to a closing poem, "The Wreck of the *Jules LaPlante*." A useful list of major lake disasters from 1769 to September 1952 is appended. There is a large section of photographs, 31 pages, from Mr. Bowen's own collection and the collections of others, which will have a special appeal to picture and model hobbyists.

We predict great popularity for this book, a third star in the field of Mr. Bowen's success. He gives us the keynote to that achievement in his very appealing and revealing dedication:

TO THE MEMORY OF MY MOTHER

Who always worried when her boy ran off to the docks in Cleveland,  
Who always listened attentively to her son tell his ship stories many years ago,  
Who took him on his first steamboat ride on the Great Lakes,  
Who always encouraged him to write his stories,  
Who would have enjoyed so much the reading of this book,  
And without whom it could not have been written.

—H. W. D.

SHIPS THAT NEVER DIE, BRIEF ACCOUNTS OF FORTY-FIVE WELL-KNOWN SHIPS OF THE GREAT LAKES, WRITTEN BY MEMBERS OF THE MARINE HISTORICAL SOCIETY OF DETROIT. Edited by REV. EDWARD J. DOWLING, S.J. Detroit, Marine Historical Society of Detroit, 1952. (The Society's Publications, No. 1.) \$1.25.

In its eight years of life the Marine Historical Society of Detroit has acquired an enviable reputation for the serious quality of its studies in Great Lakes history. INLAND SEAS has fortunately been able to print some of the papers presented by its members, and has, ever since its founding, been indebted to Father Dowling for pictures and information on lake boats.

The present booklet, reproduced from the *Marine Historian*, gives on each page the picture of a boat, with a dozen lines about its history contributed by a member of the Marine Historical Society. As many of these vessels are now gone this is a treasure chest of facts about them — specifications, owners, changes in construction, runs, and special events of their careers on the Lakes. The earliest ship listed is the *Lady Elgin*, 1851. Most of the others were on the Lakes at the turn of the century. Research workers as well as ship model hobbyists and picture collectors will find this attractive booklet a valuable permanent record. Congratulations to our sister society for its Publication No. 1, which is A No. 1!

—G. W. T.

FLEET ADMIRAL KING, A NAVAL RECORD, by Ernest J. King, Fleet Admiral U. S. Navy, and Walter Muir Whitehill, Commander, U. S. Naval Reserve. New York, W. W. Norton & Company, Inc., 1952. \$6.00.

This is certainly a book which should be acclaimed by INLAND SEAS, since Admiral King's early years reflect a Great Lakes background. King was born at Lorain, Ohio, only a short distance from the shore of Lake Erie and spent much of his boyhood in this region.<sup>1</sup> His father had been an officer on one of the schooners sailing the Lakes. The co-author, Walter Muir Whitehill, is a member of the advisory staff for INLAND SEAS. He is currently editor of *The American Neptune* and librarian of the Boston Athenaeum.

The book itself is a fascinating presentation of the life of the man who, during World War II, commanded the largest naval force in history. It becomes increasingly apparent as the reader progresses through the biography that King was the logical man for this task. His entire background, training and experience prior to 1942 were imbued with all phases of the Navy and Navy life, culminating in his choice as Commander in Chief, United States Fleet and Chief of Naval Operations at the outbreak of World War II. For example, he had been ordered to sea during the Spanish-American War while still a cadet at the Naval Academy; he had served as an Assistant Chief of Staff during World War I; he was equally at home on a surface ship, on an airplane or a submarine.

King seems to have been born with a consuming interest in ships and the Navy. This interest helped him immeasurably whether he was repairing boilers on the destroyer *Cassin*, reducing the amount of paper work as a member of the staff of Admiral Osterhaus, raising submarines sunk by accident, preparing an essay on the relative merits of large versus small battleships, outlining a new method for organization of shipboard personnel or planning one of the strategic strikes during World War II. King's maxims, set forth in the Epilogue, are worthy of note, particularly under present day conditions:

Do the best you can with what you have.  
Do not worry about water that has gone over the dam.  
Difficulties exist to be overcome.

As they say in the Navy this book is "Well Done."

—L. A. P.

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1. See *The Boyhood of Admiral King* by Marion M. King (INLAND SEAS, vol. 1, no. 2, July 1945, pp. 26-28).

RACE YOUR BOAT RIGHT, by Arthur Knapp, Jr. New York, D. Van Nostrand Co. Inc., 1952. \$6.50.

No racing skipper needs to be told who Arthur Knapp, Jr. is. One of the most prominent of the "down east" sailors, he tells in this new book how he achieved his success. It is not a success story, however. It is a reference encyclopedia for the sailboat racing fan whether the boat he sails is a plywood dinghy or a sleek blue-water cruiser. There is no detail that the book overlooks from pre-season conditioning of the hull to planning the season's racing campaign and finally putting the boat to bed for the winter.



It discusses the various types of equipment to have aboard—cleats, spinnaker poles, stop watches, wind pennants and other items that are helpful in winning races, the advantages of the many varieties of each on the market. Especially well done is the dissertation on racing tactics and the proper defense or attack. The author sets forth the important variables that win or lose races—the hull and its condition, spars, rigging, sails, tide, wind and weather, the crew, luck and the skipper. He then analyzes these variables, stressing the vital fact that consistency is a greater winner of championships than occasional smart bits of sailing.

To make certain that his work was thorough and understandable, Knapp submitted the manuscript to Commodore Harold S. Vanderbilt, famous as the successful defender of the America's cup, Roderick Stephens, Jr., one of our foremost yacht designers, and Prescott Wilson whose sail making firm has provided the canvas for many prize-winning craft, for their opinions.

Vanderbilt prepared an introduction for the volume in which he aptly describes it as covering "every phase of how to win . . . based on cold hard facts learned over the years in the usually pleasant but sometimes bitter school of practical experience."

It is a book you can't afford to miss if sail yacht racing is your forte.

—A. A. M.

CLINTON CRANE'S YACHTING MEMORIES, by Clinton H. Crane. New York, D. Van Nostrand Co. Inc., 1952. \$6.00.

This is yachting history at its informal best. The author is an industrialist who devoted his earlier years to yacht designing when yacht designers were few and far between and when pleasure boating was going through its growing pains before attaining the widespread popularity it now enjoys.

He tells about the boats he designed and the people he designed them for. Among the powerboats that came to life from plans he prepared was the *Dixie* with which he won the Harmsworth trophy in 1907.

He dwells with subtle humor on his experiences with nouveaux riches clients who wanted steam yachts bigger, fancier and faster than the other fellows. One former Cleveland among them, insisting upon a passageway exactly three feet wide, took a stick pointed at both ends and walked down the passageway. Wherever the passageway was slightly narrower, the stick gouged the teakwood panels on both sides. He demanded that the paneling be removed and the space widened. Although the contract called for a definite cruising speed to be guaranteed, he began insisting upon heavy porcelain bath tubs and other weighty gadgets that soon lowered the waterline over a foot. The boat attained its guaranteed speed but only as the result of continuous redesigning of the engines after each new addition. This same client insisted that the heavy porcelain bath tubs should hold water at least eighteen inches deep before they overflowed into their escape pipes.

There is mention of the old 21-rater, *Rooster*, that is still sailing around Cleveland although well over a half century old.

The measurement rules, the development of Corinthian racing, club cruises and the new racing classes are discussed in an easy, humorous and interesting manner.

It is a fine addition to any yachting library.

—A. A. M.

## Among the Book Reviewers

L. A. P. is Lawrence A. Pomeroy, Secretary of GLHS, a former Navy man and now Traffic Manager for National Malleable & Steel Castings Company of Cleveland.

H. W. D. is Herbert W. Dosey, chairman of the Membership Committee, GLHS. He has written articles for INLAND SEAS based on long experience on the Lakes.

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G. W. T. is Gordon W. Thayer, Book Editor; and D. L. R. is Donna L. Root, Editor.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, AND CIRCULATION  
REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS  
AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946  
(Title 39, United States Code, Section 233)

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DONNA L. ROOT,  
*Editor and Managing Editor.*

Sworn to and subscribed before me this 29th day of September, 1952.

[SEAL]

LEO P. JOHNSON,  
(My commission expires Nov. 9, 1954.)

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Compiled by Gertrude M. Robertson

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| <i>American, North</i>     | <i>Brown, Harvey H.</i>     | <i>Cleveland, City of</i>    |
| <i>American, South</i>     | <i>Brown, W. W.</i>         | <i>Clipper, Milwaukee</i>    |
| <i>Anderson, Arthur M.</i> | <i>Brown, William L.</i>    | <i>Columbus, Christopher</i> |
| <i>Armour, Philip D.</i>   | <i>Buffalo, City of</i>     | <i>Cook, Col.</i>            |
| <i>Armstrong, Frank</i>    | <i>Bunsen, Robert W. E.</i> | <i>Cooke, Jay</i>            |
| <i>Ashley, J. S.</i>       | <i>Burke, Joseph P.</i>     | <i>Corey, William E.</i>     |
|                            | <i>Burt, Wells</i>          | <i>Corliss, George H.</i>    |
| <i>Baldwin, S. C.</i>      |                             | <i>Coulby, Harry</i>         |
| <i>Barlum, Thomas J.</i>   | <i>Calloway, Cason J.</i>   | <i>Coyne, Emma L.</i>        |
| <i>Bartow, J. H.</i>       | <i>Campbell, Gordon</i>     | <i>Crerar, John</i>          |
| <i>Battle, James</i>       | <i>Canfield, Frank</i>      | <i>Cuthbert, Annie</i>       |
| <i>Bixby, W. H.</i>        | <i>Carruthers, James</i>    |                              |
| <i>Boeckling, G. A.</i>    | <i>Carter, E. D.</i>        | <i>Davidson, A. D.</i>       |
| <i>Bradley, Carl D.</i>    | <i>Chatham, City of</i>     | <i>Detroit, City of</i>      |
| <i>Briscoe, Nellie</i>     | <i>Clarke, Philip R.</i>    | <i>Dover, City of</i>        |

Dufferin, Countess of  
Dunn, Sir James

Eddy, Charles A.  
Eddy, Selwyn  
Edenborn, William  
Elgin, Lady  
Elphicke, Mary C.  
Erie, City of  
Explorer, Manchester

Fairbairn, Sir William  
Fink, George R.  
Fitch, William E.  
Fitzgerald, W. E.  
Flagg, G. A.  
Ford, William C.  
Franklin, Lady  
Fulton, Robert

Gary, Elbert H.  
Grand Rapids, City of  
Greene, Edward B.  
Girdler, Tom M.  
Griffith, G. P.

Hackett, Alice  
Hanna, Howard M., Jr.  
Hart, Fannie C.  
Hartnell, George E.  
Hawgood, Arthur H.  
Hawgood, William A.  
Heffelfinger, Frank T.  
Hill, Bunker  
Howe, George C.  
Hoyt II, Elton  
Hurd, Joseph L.  
Huron, Lake  
Hutchinson, Charles L.  
Hutchinson, Gene C.

Ireland, R. L.  
Irwin, John G.

James, Henry R.  
Jenmins, C. O.  
Jones, F. P.

Kerr, D. C.  
Kerr, William B.  
Kirby, Frank E.  
Kirby, S. R.

Krupp, Alfred  
Kulas, E. J.

Lambert, John  
Leonard, George B.  
Lindsay, A. G.  
Linn, William R.  
Livingstone, Wm.  
Lorman, C. A.  
Lynch, Thomas

Mackinac, City of  
MacTier, A. D.  
Major, War  
Marie, Sainte  
Marshall, Albert M.  
Marshall, Robert H.  
Mather, Samuel  
Mauthe, J. L.  
Maytham, Thomas  
McGean, John A.  
McKellar, John O.  
Merrick, W. F.  
Misener, Scott  
Morgan, J. Pierpont  
Munro, Alma  
Munson, John G.  
Murphy, Simon J.

Nettleton, A. E.  
Noble, Benjamin  
Nottingham, William

Ocean, Inter  
Ohl, Edwin N.  
Ohio, State of  
Orr, Arthur  
Orr, George N.  
Owen, Ira H.  
Owen, J. Emory  
Owen, John

Palmer, Thomas W.  
Parent, S. N.  
Parnell, Chas. Stewart  
Pioneer, Manchester  
Pope, E. C.  
Price, Charles S.  
Prince, F. H.  
Pringle, John C.

Queen, Coastal

Rand, George F.  
Ream, Norman B.  
Reed, James H.  
Reeves, Ermo P.  
Republic, Greater  
Rice, R. N.  
Robb, W. T.  
Robinson, Chief Justice  
Robinson, Lucius W.  
Robinson, Mary Ann  
Robinson, T. W.  
Rogers, Henry H.  
Roosevelt, Theodore

Sandusky, City of  
Savidge, Hunter  
Schwartz, K. V.  
Scott, Isaac M.  
Shaughnessy, Sir Thos.  
Shaw, Howard L.  
Sheldon, Cora A.  
Smith, Governor  
Smith, Henry B.  
Smith, Lyman C.  
Spinner, Manchester  
Stackhouse, Powell  
Star, Morning  
Star, North  
Star, Western  
Stone, Amasa  
Straits, City of the

Thompson, Joseph H.  
Townsend, Charles

Utley, E. H.

Wade, Benjamin F.  
Waldo, L. C.  
Walker, Perry G.  
Warner, Charles M.  
Wave, Northern  
Webster, Daniel  
Weir, E. T.  
Wells, Frederick B.  
White, Pendennis  
Whitney, David M.  
Widener, Peter A. B.  
Wilkinson, Horace S.  
Wing, J. T.  
Wolf, Lottie



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